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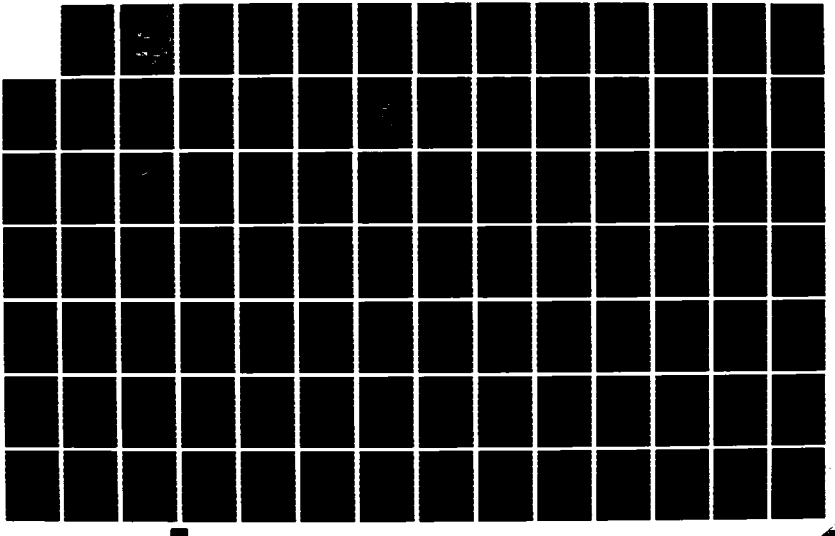

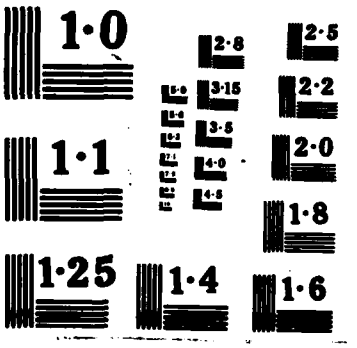
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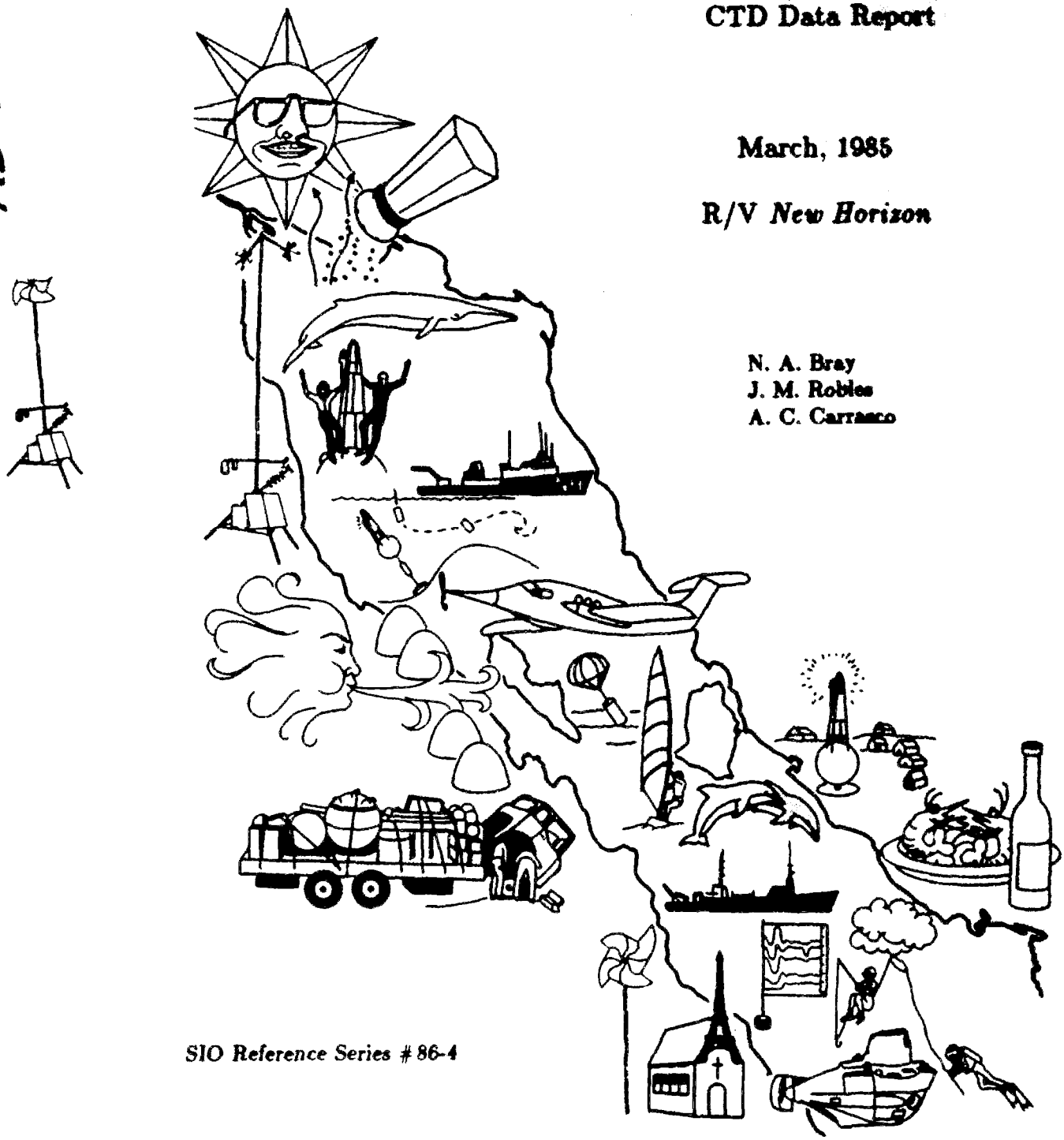
Contract N00014-84-C-0257

Pichicuco 7: Gulf of California CTD Data Report

March, 1985

R/V *New Horizon*

N. A. Bray
J. M. Robles
A. C. Carranco



SIO Reference Series # 86-4

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Pichicuco 7: Gulf of California CTD Data Report

March, 1985

R/V *New Horizon*

N. A. Bray[1]

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N00014-84-C-0257

SIO Reference Series 86-4

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Abstract

During late winter of 1985, the R/V *New Horizon* occupied a total of 149 CTD stations in the northern half of the Gulf of California. The objective of the cruise was to examine winter hydrographic characteristics, especially as they might apply to water mass formation processes in the northern Gulf. This report presents individual profiles of temperature, salinity and density for those stations, along with regional composite diagrams of potential temperature vs salinity.

A detailed discussion of the techniques used to process the data is also included, in which a new technique for computing high resolution salinity profiles is introduced.

Resumen

A fines del invierno de 1985, la embarción R/V *New Horizon* ocupó un total de 149 estaciones de CTD en la parte norte del Golfo de California. El objectivo de este crucero fué examinar las caracteríśticas hidrográficas que se presentan en invierno, especialmente como éstas se pueden aplicar a procesos de formación de masas de agua en la parte norte del golfo. Este reporte presenta, para cada estación, perfiles de temperatura, salinidad y densidad, junto con diagramas regionales compuestos de temperatura potencial contra salinidad.

Se incluye una detallada discusión de las técnicas usadas para procesar los datos, en la cual se describe una nueva técnica para calcular perfiles de salinidad con alta resolución.

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1. Introduction

The CTD stations presented in this report are from the seventh Pichicuco cruise in the Gulf of California. The Pichicuco cruises began in 1982 as a cooperative physical oceanography field program between scientists at Centro de Investigación Científica y Educación Superior de Ensenada and Scripps Institution of Oceanography. A wide range of phenomena relating to circulation in the Gulf have been examined during the cruises. The data collected during this cruise (PC7) were aimed primarily at studying the late winter water mass conditions in the northern Gulf, and stations are concentrated in the northern half of the Gulf (Figure 1, Table 1).

As shown in Table 2, both the Mexican research vessel B/O *El Puma* and the U.S. research vessel R/V *New Horizon* were used during the Pichicuco cruises. Cruise PC7, aboard the R/V *New Horizon*, was conducted under the auspices of Permit No. 250285-333-04-0603 (28 Feb 1985) and Diplomatic Note No. 300649 (11 Mar 1985) courtesy of the Government of Mexico. Funding for the cruise came from NSF grant No. OCE83-18288 and ONR contract N00014-84-C-0257.

Many people deserve thanks for their efforts toward making this report possible. In particular, we would like to thank those responsible both in the U.S. and in Mexico for obtaining clearance for the R/V *New Horizon* to work in Mexican waters. Vanessa Cunningham and Jennifer Davis most capably kept our customs, shipping and finances in order. The captain and crew of the R/V *New Horizon* participated in the work with skill and enthusiasm, contributing substantially to the success of the cruise. Watchstanders on the cruise were Walt Waldorf and Jim Wells (watch captains); Cindy Paden, Myrl Hendershott, Joan Semler, Antoine Badan, Geoff Hargreaves and Juan Gaviño. The consistently high quality of the data is a tribute to their skill and concentration.

Particular thanks go to Frank Delahoyde for advice in the early stages of programming our IBM 9000 to acquire CTD data. Final layup of the report was done by Mike Clark. The report cover was illustrated by Nancy Hulbirt.

1. Introducción

Las estaciones de CTD presentadas en este reporte pertenecen al séptimo crucero Pichicuco en el Golfo de California. Los cruceros Pichicuco empezaron en 1982 como un programa de Oceanografía Física entre investigadores del Centro de Investigación Científica y Educación Superior de Ensenada y Scripps Institution of Oceanography. Durante estas cruceros se examinó un amplio rango de fenómenos relacionados con la circulación en el Golfo. Los datos obtenidos durante este crucero (PC7) fueron enfocados principalmente al estudio de las condiciones de masas de agua en la parte norte del Golfo durante el final del invierno y las estaciones se concentraron en la mitad Norte del Golfo (Figura 1).

Como se indica en la Tabla 1, los cruceros Pichicuco, fueron realizados en dos embarcaciones, una mexicana, el B/O *El Puma* y la otra estadounidense (B/O) R/V *New Horizon.* El Crucero PC7, abordo del R/V *New Horizon*, se efectuó bajo los auspicios del permiso No. 250285-333-04-0603 (28 de febero de 1985) y el registro Diplomatico No. 300649 (11 de Marzo de 1985) cortesía del gobierno de México. Los fondos para el crucero provinieron de la NSF (National Science Foundation) programa No. OCE83-18288 y del contrato N00014-84-C-0257 de la ONR (Office of Naval Research).

Este reporte ha sido posible gracias a la colaboración de un gran número de personas. En particular, nos gustaría agradecer a aquellas personas responsables, tanto en Estados Unidos como en México de la obtención del permiso, con lo cual la embarcarción New Horizon pudo trabajar en aguas mexicanas. Vanessa Cunningham y Jennifer Davis manejaron muy capazmente todo lo referente a cuestiones administrativas. El capitán y la tripulación del R/V *New Horizon* participaron con habilidad y entusiasmo, contribuyendo substancialmente al éxito del crucero. Las personas que realizaron las guardias durante el crucero fueron Walt Waldorf y Jim Wells (capitanes de guardia), Cindy Paden, Myrl Hendershott, Joan Semler, Antoine Badan, Geoff Hargreaves y Juan Gaviño. La alta calidad de los datos obtenidos es una consecuencia de su habilidad y paciencia.

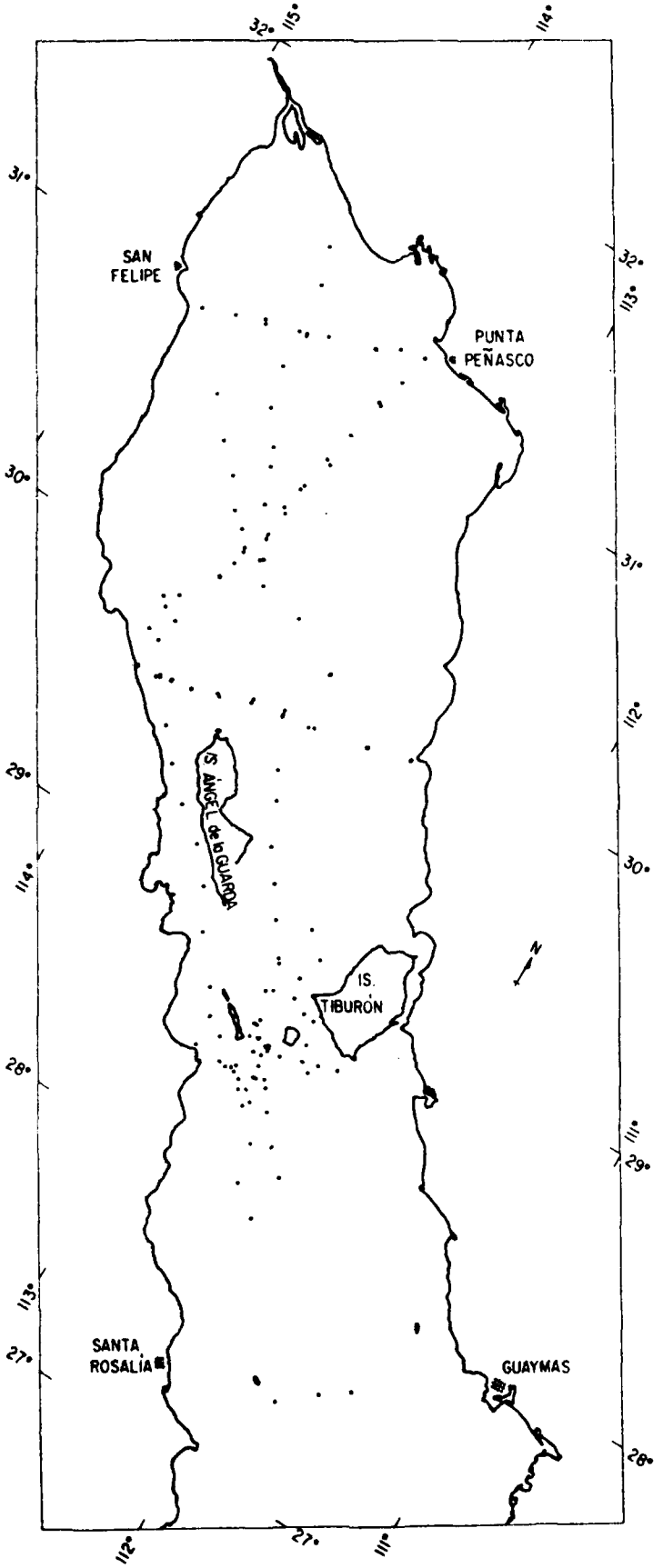


Figure 1. Station locations

Table 1: Station Locations

Station	Lat	Long	Date	GMT	Depth	Section	Across Gulf	Along Gulf
PC7001	28 39.1N	112 36.4W	10/ 3/85	1012Z	444/ 451m	CAP-1	-19.83km	241.29km
PC7002	28 37.6N	112 38.8W	10/ 3/85	1047Z	493/ 498m	CAP-2	-24.74km	241.29km
PC7003	28 37.6N	112 38.4W	10/ 3/85	1144Z	372/ 377m	CAP-3	-24.16km	240.98km
PC7004	28 39.6N	112 39.1W	10/ 3/85	1205Z	484/ 489m	CAP-4	-22.96km	244.66km
PC7005	28 43.3N	112 39.8W	10/ 3/85	1302Z	449/ 454m	CAP-5	-19.69km	250.78km
PC7006	28 36.2N	112 37.9W	10/ 3/85	1402Z	295/ 300m	CAP-6	-25.03km	238.41km
PC7007	29 48.6N	112 41.8W	11/ 3/85	1031Z	64/ 69m	NG1-1	49.40km	350.16km
PC7008	30 2.8N	113 16.8W	11/ 3/85	1345Z	153/ 158m	NG1-2	18.90km	404.73km
PC7009	30 7.5N	113 32.2W	11/ 3/85	1538Z	160/ 165m	NG1-3	3.82km	426.45km
PC7010	30 9.6N	113 45.1W	11/ 3/85	1714Z	223/ 228m	NG1-4	-10.90km	441.95km
PC7011	30 13.9N	113 55.0W	11/ 3/85	1836Z	378/ 383m	NG1-5.	-19.10km	457.75km
PC7012	30 18.0N	113 59.0W	11/ 3/85	1947Z	267/ 272m	NG1-6.	-19.82km	467.66km
PC7013	30 21.4N	114 3.0W	11/ 3/85	2055Z	311/ 316m	NG1-7.	-21.31km	476.53km
PC7014	30 27.6N	114 8.5W	11/ 3/85	2224Z	148/ 153m	NG1-8	-21.67km	490.98km
PC7015	30 33.7N	114 15.5W	11/ 3/85	14Z	103/ 108m	NG1-9.	-24.10km	506.71km
PC7016	30 42.3N	114 24.2W	11/ 3/85	159Z	37/ 42m	NG1-10.	-25.98km	527.77km
PC7017	30 57.3N	114 39.9W	11/ 3/85	405Z	24/ 29m	NG1-11.	-29.91km	564.96km
PC7018	31 3.0N	114 23.0W	11/ 3/85	611Z	33/ 38m	NG1-12.	-1.43km	557.31km
PC7019	31 4.8N	114 10.6W	12/ 3/85	727Z	168/ 173m	NG1-13.	16.81km	548.18km
PC7020	31 11.0N	113 53.5W	12/ 3/85	945Z	42/ 47m	NG1-14	46.07km	541.11km
PC7021	31 15.1N	113 40.2W	12/ 3/85	1118Z	18/ 23m	NG1-15	68.02km	534.55km
PC7022	31 .2N	113 43.8W	12/ 3/85	1300Z	61/ 66m	NG1-16	46.83km	515.84km
PC7023	30 42.1N	113 47.1W	12/ 3/85	1503Z	80/ 84m	NG1-17	22.48km	492.10km
PC7024	30 33.5N	113 50.2W	12/ 3/85	1612Z	90/ 95m	NG1-18.	8.90km	482.28km
PC7025	30 26.7N	113 50.7W	12/ 3/85	1712Z	172/ 177m	NG1-19	.72km	472.66km
PC7026	30 19.4N	113 51.5W	12/ 3/85	1808Z	250/ 255m	NG1-20	-8.41km	462.58km
PC7027	30 15.0N	113 49.1W	12/ 3/85	2013Z	398/ 403m	NG1-21.	-10.12km	453.75km
PC7028	30 5.8N	113 57.7W	12/ 3/85	2201Z	382/ 387m	NG1-22.	-31.62km	448.31km
PC7029	29 54.9N	114 .8W	12/ 3/85	2Z	460/ 465m	NG1-23.	-47.77km	435.09km
PC7030	29 51.4N	114 1.0W	12/ 3/85	103Z	479/ 484m	NG1-24.	-51.91km	430.08km
PC7031	29 45.1N	114 2.8W	12/ 3/85	215Z	301/ 306m	NG1-25	-61.26km	422.45km
PC7032	29 37.5N	114 4.0W	12/ 3/85	342Z	99/ 104m	NG1-26.	-71.26km	412.32km
PC7033	29 37.7N	113 58.0W	12/ 3/85	440Z	674/ 679m	NG1-27.	-63.12km	406.87km
PC7034	29 39.0N	113 53.5W	12/ 3/85	603Z	947/ 952m	NG1-28.	-55.75km	404.49km
PC7035	29 39.5N	113 48.1W	13/ 3/85	738Z	608/ 613m	NG1-29	-48.07km	400.05km
PC7036	29 41.9N	113 40.7W	13/ 3/85	859Z	549/ 554m	NG1-30	-35.66km	396.53km
PC7037	29 45.6N	113 31.6W	13/ 3/85	1032Z	234/ 239m	NG1-31	-19.57km	393.31km
PC7038	29 45.2N	113 22.0W	13/ 3/85	1146Z	181/ 186m	NG1-32	-7.36km	383.52km
PC7039	29 46.9N	113 14.0W	13/ 3/85	1249Z	182/ 187m	NG1-33	5.06km	378.39km
PC7040	29 50.5N	112 58.1W	13/ 3/85	1431Z	87/ 92m	NG1-34	29.98km	368.53km
PC7041	28 40.5N	112 16.3W	14/ 3/85	1115Z	102/ 107m	SILL-1	8.34km	223.96km
PC7042	28 39.6N	112 22.5W	14/ 3/85	1213Z	273/ 278m	SILL-2	-.94km	228.67km
PC7043	28 38.1N	112 28.4W	14/ 3/85	1310Z	291/ 296m	SILL-3	-10.40km	232.08km
PC7044	28 36.6N	112 34.6W	14/ 3/85	1406Z	497/ 502m	SILL-4	-20.12km	235.87km
PC7045	28 38.4N	112 39.1W	14/ 3/85	1520Z	337/ 342m	SILL-5	-24.19km	242.83km
PC7046	28 38.4N	112 40.9W	14/ 3/85	1615Z	527/ 532m	SILL-6	-26.59km	244.57km
PC7047	28 37.2N	112 44.1W	14/ 3/85	1742Z	358/ 363m	SILL-7	-32.14km	245.82km
PC7048	28 37.4N	112 42.8W	14/ 3/85	1821Z	589/ 594m	SILL-8	-30.21km	244.99km
PC7049	28 34.3N	112 41.8W	14/ 3/85	1924Z	429/ 434m	SILL-9	-32.33km	239.36km
PC7050	28 30.5N	112 39.6W	14/ 3/85	2029Z	351/ 356m	SILL-10	-33.58km	231.61km
PC7051	28 27.9N	112 38.7W	14/ 3/85	2137Z	378/ 383m	SILL-11	-35.18km	226.73km
PC7052	28 26.8N	112 38.6W	14/ 3/85	2237Z	367/ 372m	SILL-12	-36.33km	225.09km
PC7053	28 17.9N	112 43.4W	14/ 3/85	124Z	560/ 565m	SILL13;	-52.32km	216.50km
PC7054	28 24.0N	112 37.8W	14/ 3/85	312Z	378/ 383m	SILL-14	-38.31km	220.10km
PC7055	28 27.7N	112 45.6W	14/ 3/85	502Z	590/ 595m	SILL-15	-44.58km	233.15km
PC7056	28 28.4N	112 44.5W	14/ 3/85	609Z	788/ 793m	SIIL-16	-42.35km	233.14km
PC7057	28 33.0N	112 45.9W	15/ 3/85	733Z	270/ 280m	SILL-17	-39.10km	241.28km
PC7058	28 29.8N	112 52.6W	15/ 3/85	836Z	148/ 153m	SILL-18	-51.56km	243.10km
PC7059	28 34.7N	112 35.1W	15/ 3/85	1300Z	662/ 667m	SILL-19	-22.99km	233.49km
PC7060	28 56.8N	112 40.2W	15/ 3/85	1423Z	366/ 371m	PC7060	-5.38km	271.33km
PC7061	29 17.1N	112 43.3W	15/ 3/85	1540Z	382/ 387m		12.76km	304.67km
PC7062	29 6.3N	112 44.0W	15/ 3/85	445Z	303/ 308m	T1	-.03km	289.15km
PC7063	29 1.3N	112 38.5W	15/ 3/85	610Z	327/ 332m	STA T2.	1.75km	276.41km
PC7064	28 55.5N	112 41.0W	16/ 3/85	718Z	628/ 633m	STA.T3.	-7.93km	270.16km
PC7065	28 52.3N	112 39.4W	16/ 3/85	852Z	752/ 757m	STA.T4.	-9.33km	263.86km
PC7066	28 48.5N	112 35.0W	16/ 3/85	1020Z	572/ 613m	STA. T5	-7.68km	253.96km
PC7067	28 48.0N	112 31.5W	16/ 3/85	1120Z	557/ 562m	T6	-3.59km	249.84km
PC7068	28 42.4N	112 29.3W	16/ 3/85	1233Z	359/ 385m	T7.	-6.83km	239.37km
PC7069	28 37.0N	112 25.5W	16/ 3/85	1342Z	243/ 248m	T8.	-7.72km	227.66km
PC7070	28 .0N	112 17.8W	16/ 3/85	129Z	1097/1102m	WS-15.	-38.08km	165.02km
PC7071	28 4.3N	112 23.9W	16/ 3/85	338Z	1015/1030m	WS-14.	-41.52km	177.27km

* Across- and along-Gulf distances are computed using an origin of 27 N, 111 W; the angle of rotation is 36 degrees.

Station	Lat	Long	Date	GMT	Depth	Section	Across Gulf	Along Gulf
PC7072	28 15.0N	112 28.5W	16/ 3/85	551Z	846/ 851m	WS-13.	-35.84km	197.73km
PC7073	28 22.0N	112 35.6W	17/ 3/85	744Z	464/ 469m	WS-12	-37.58km	215.02km
PC7074	28 29.4N	112 43.1W	17/ 3/85	956Z	760/ 765m	WS -11	-39.40km	233.28km
PC7075	28 32.0N	112 51.2W	17/ 3/85	1144Z	789/ 794m	WS10	-47.28km	244.95km
PC7076	28 36.0N	112 56.5W	17/ 3/85	1335Z	1327/1332m	WS9	-49.90km	256.02km
PC7077	28 41.9N	113 .6W	17/ 3/85	1545Z	1509/1514m	WS8 .	-48.84km	268.75km
PC7078	28 52.2N	113 11.1W	17/ 3/85	1802Z	1281/1286m	WS7	-51.40km	294.19km
PC7079	28 1.5N	113 16.4W	17/ 3/85	320Z	1224/1229m	WS6.	-114.31km	223.84km
PC7080	29 9.2N	113 24.1W	17/ 3/85	543Z	967/ 972m	WS-5.	-49.85km	331.98km
PC7081	29 15.2N	113 33.8W	18/ 3/85	732Z	577/ 582m	WS4	-56.05km	350.22km
PC7082	29 22.2N	113 41.6W	18/ 3/85	910Z	730/ 735m	WS3	-58.62km	368.11km
PC7083	29 29.2N	113 48.5W	18/ 3/85	1055Z	852/ 857m	WS2	-59.99km	385.13km
PC7084	29 37.8N	113 57.0W	18/ 3/85	1248Z	940/ 945m	WS1	-61.69km	406.06km
PC7085	29 37.5N	114 3.8W	18/ 3/85	1432Z	66/ 75m	NG2-26	-70.99km	412.13km
PC7086	29 46.6N	114 6.4W	18/ 3/85	1537Z	343/ 348m	NG2-25	-64.34km	428.13km
PC7087	29 52.7N	114 5.5W	18/ 3/85	1642Z	492/ 497m	NG2-24	22.65km	378.89km
PC7088	29 57.0N	114 3.9W	18/ 3/85	1750Z	469/ 474m	NG2-23	-49.53km	441.17km
PC7089	30 6.0N	113 57.2W	18/ 3/85	1933Z	408/ 413m	NG2-22.	-30.74km	448.12km
PC7090	29 14.9N	113 55.4W	18/ 3/85	2058Z	299/ 304m	NG2-21.	-84.92km	370.51km
PC7091	30 20.6N	113 51.5W	18/ 3/85	2219Z	287/ 292m	NG2-20.	-7.08km	464.36km
PC7092	30 27.7N	113 51.6W	18/ 3/85	2352Z	154/ 159m	NG2-19.	.64km	475.00km
PC7093	30 34.5N	113 50.0W	18/ 3/85	111Z	92/ 97m	NG2-18.	10.27km	483.57km
PC7094	30 42.7N	113 48.4W	18/ 3/85	231Z	67/ 72m	NG2-16	21.44km	494.23km
PC7095	30 50.5N	113 46.2W	18/ 3/85	343Z	70/ 75m	NG2-16	32.95km	503.72km
PC7096	31 .8N	113 44.5W	18/ 3/85	506Z	62/ 67m	NG2-16.	46.58km	517.40km
PC7097	31 7.2N	113 41.9W	18/ 3/85	622Z	36/ 41m	NG2-15A	57.06km	524.43km
PC7098	31 13.7N	113 46.7W	19/ 3/85	746Z	16/ 21m	NG2-14	57.96km	538.66km
PC7099	31 11.0N	113 53.0W	19/ 3/85	900Z	46/ 52m	NG2-13A	46.73km	540.64km
PC7100	31 4.0N	114 59.5W	19/ 3/85	1031Z	59/ 64m	NG2-13A	-48.14km	593.54km
PC7101	31 4.8N	114 13.2W	19/ 3/85	1317Z	159/ 164m	NG2-13	13.40km	550.66km
PC7102	31 2.1N	114 22.2W	19/ 3/85	1438Z	35/ 42m	NG1-12.	-1.38km	555.22km
PC7103	30 58.0N	114 30.8W	19/ 3/85	1538Z	21/ 26m	NG2-11.	-17.17km	557.37km
PC7104	31 25.0N	114 18.5W	20/ 3/85	717Z	22/ 27m	SF-1	28.88km	585.66km
PC7105	31 16.5N	114 14.5W	20/ 3/85	832Z	100/ 105m	SF-2	24.68km	569.25km
PC7106	31 5.0N	114 11.0W	20/ 3/85	956Z	158/ 163m	SF-3	16.51km	548.86km
PC7107	30 55.8N	114 12.0W	20/ 3/85	1106Z	158/ 163m	SF-4	5.00km	536.16km
PC7108	30 46.0N	114 9.0W	20/ 3/85	1225Z	198/ 203m	SF-5	-1.93km	518.76km
PC7109	30 38.6N	114 2.9W	20/ 3/85	1345Z	174/ 180m	SF-6	-2.13km	501.97km
PC7110	30 34.3N	114 .7W	20/ 3/85	1519Z	158/ 163m	SF-7	-4.00km	493.48km
PC7111	30 26.1N	113 57.9W	20/ 3/85	1630Z	224/ 229m	SF-8	-9.41km	478.64km
PC7112	30 14.4N	113 50.0W	20/ 3/85	1851Z	395/ 400m	NG2-5	-11.97km	453.72km
PC7113	30 10.6N	113 45.5W	20/ 3/85	1954Z	224/ 229m	NG2-4.	-10.25km	443.77km
PC7114	30 6.9N	113 33.1W	20/ 3/85	2127Z	164/ 169m	NG2-3.	1.97km	426.42km
PC7115	30 2.0N	113 16.9W	20/ 3/85	2334Z	158/ 163m	NG2-2	17.89km	403.64km
PC7116	29 53.4N	112 45.6W	20/ 3/85	245Z	68/ 73m	NG2-1.	49.64km	360.88km
PC7117	29 50.4N	112 58.1W	20/ 3/85	416Z	92/ 93m	NG2-34.	29.87km	368.38km
PC7118	29 47.5N	113 12.9W	20/ 3/85	600Z	184/ 189m	NG2-33.	7.17km	378.23km
PC7119	29 47.2N	113 22.4W	21/ 3/85	710Z	172/ 177m	NG2-32	-5.68km	386.88km
PC7120	29 44.6N	113 31.6W	21/ 3/85	822Z	241/ 250m	NG2-31	-20.68km	391.83km
PC7121	29 41.5N	113 40.0W	21/ 3/85	937Z	572/ 577m	NG2-31	-35.18km	395.26km
PC7122	29 39.9N	113 48.0W	21/ 3/85	1105Z	608/ 613m	NG2-29	-47.50km	400.55km
PC7123	29 38.6N	113 54.0W	21/ 3/85	1216Z	949/ 954m	NG2-28	-56.85km	404.37km
PC7124	29 38.4N	113 57.5W	21/ 3/85	1323Z	676/ 681m	NG2-27	-61.69km	407.43km
PC7125	29 46.0N	113 22.0W	21/ 3/85	248Z	194/ 199m	ES-1	-6.48km	384.71km
PC7126	29 34.7N	113 15.4W	21/ 3/85	430Z	337/ 342m	ES-2	-10.30km	361.62km
PC7127	29 28.0N	113 11.5W	21/ 3/85	621Z	409/ 414m	ES-3	-12.48km	347.87km
PC7128	29 18.4N	113 6.0W	22/ 3/85	742Z	456/ 461m	ES-4	-15.80km	328.31km
PC7129	29 11.2N	113 .0W	21/ 3/85	919Z	438/ 443m	ES-5	63.51km	254.20km
PC7130	29 4.0N	112 54.5W	22/ 3/85	1042Z	401/ 406m	ES-6	-16.44km	295.81km
PC7131	28 56.5N	112 48.6W	22/ 3/85	1201Z	396/ 409m	ES-7	-16.89km	278.96km
PC7132	28 47.6N	112 46.6W	22/ 3/85	1801Z	389/ 394m	ES-8	-24.03km	263.77km
PC7133	28 40.4N	112 45.0W	22/ 3/85	1924Z	850/ 851m	ES-9	-29.82km	251.50km
PC7134	28 38.0N	112 41.8W	22/ 3/85	2052Z	535/ 540m	ES-10.	-28.22km	244.85km
PC7135	28 34.9N	112 38.9W	22/ 3/85	2237Z	551/ 556m	ES-11	-27.78km	237.43km
PC7136	28 30.1N	112 34.9W	22/ 3/85	2347Z	729/ 734m	ES-12	-27.75km	226.42km
PC7137	28 24.0N	112 29.4W	22/ 3/85	115Z	858/ 863m	ES-13.	-27.16km	212.02km
PC7138	28 16.1N	112 28.9W	22/ 3/85	306Z	1058/1063m	ESP-1.	-35.16km	199.76km
PC7139	28 28.3N	112 32.7W	22/ 3/85	548Z	845/ 850m	ESP-2.	-26.81km	221.62km
PC7140	28 34.7N	112 39.5W	23/ 3/85	725Z	627/ 632m	ESP-3	-28.80km	237.71km
PC7141	28 38.1N	112 42.0W	23/ 3/85	827Z	515/ 580m	ESP-4	-28.38km	245.19km
PC7142	28 40.6N	112 43.1W	23/ 3/85	921Z	851/ 856m	ESP-5	-27.09km	249.97km

Station	Lat	Long	Date	GMT	Depth	Section	Across Gulf	Along Gulf
PC7143	28 29.1N	112 38.0W	23/ 3/85	1123Z	669/ 674m	ESP-6	-32.96km	227.92km
PC7144	28 17.1N	112 23.0W	23/ 3/85	654Z	909/ 914m	ES-14.	-26.24km	195.56km
PC7145	28 18.0N	112 29.0W	24/ 3/85	845Z	1079/1084m	ESP1,	-33.21km	202.69km
PC7146	28 11.5N	112 16.9W	24/ 3/85	1108Z	850/ 855m	ES-15	-24.28km	181.32km
PC7147	27 25.0N	111 45.6W	25/ 3/85	856Z	1512/1517m	B-4	-33.55km	81.60km
PC7148	27 32.0N	111 36.2W	25/ 3/85	1109Z	1532/1840m	B-5	-13.38km	82.97km
PC7149	27 36.9N	111 28.2W	25/ 3/85	1319Z	1500/1505m	B-4.	2.62km	82.56km

Table 2

Pichicuco Cruises in the Gulf of California

Month	Year	Ship	Expedition	Number of Stns.	Type of Data	Chief Scientist/ P.I.
Mar	85	New Horizon	Pichicuco VII	149	CTD	Bray
Nov	84	New Horizon	Pichicuco VI	230	CTD	Winant/Bray
May	84	New Horizon	Pichicuco V	179	CTD	Winant/Bray
Nov	83	El Puma	Pichicuco IV	78	CTD	Badan/Robles
May	83	El Puma	Pichicuco III	160	STD	Badan/Robles
Nov	82	El Puma	Pichicuco II	48	STD	Badan/Robles

2. Data Processing

This discussion is divided into several sections, organized approximately in the order in which the data is acquired and processed. Program listings are appended. The sections are: acquisition, calibration, error identification, combination of separately digitized fast- and slow-response temperature signals, lag correction and salinity calculations, and pressure averaging.

a) Acquisition

All data described in this report were taken using a NBIS Mark III fish with a separately digitized fast-response thermistor, and an SIO-designed and fabricated deck unit which converts the audio FSK signal into a digital data stream. The digital data is then read by an IBM 9000 computer in real time, is framed and stored on floppy disks. Minimal real time processing is conducted, due to timing constraints on the computer, but subsampled raw scans are scaled and printed to both screen and line printer for check purposes. The acquisition program does check for timing errors (time is a variable in the data stream) and gaps in the incoming data, as well as for input buffer overflows. A listing of the acquisition program, MAR85.FOR, is appended.

b) Calibration

The CTD used during PC7 was calibrated at the PACODF laboratory (SIO) for absolute accuracy of pressure and platinum resistance thermometer temperature, temperature response of the pressure sensor and hystersis in the 0-2000 db pressure range. Results are summarized in Figures 2 and 3. Absolute temperature accuracy is ± .002 ° C for the PRT. The pressure sensor has an offset of -4.5 db ; hysteresis errors are 0(2 db). Conductivity is calibrated at sea using water samples taken with a rosette sampler during the uptrace of most casts. Check sample conductivity ratios were determined using a Hytech salinometer and Wormley standard water batch P-96. Salinities were then computed using PSS78 (Fofonoff and Millard, 1983). Raw CTD values of pressure, slow temperature and conductivity were also recorded for each check sample as it was being taken, for immediate comparison. In addition, the uptraces were

Agradecemos particularmente a Frank Delahoyde por sus consejos en las primeras etapas de programación de nuestra IBM 9000 para la adquisición de los datos de CTD. El diseño final del reporte fué realizado por Mike Clark.

2. Procesamiento de datos

Esta discusión está dividida en varias secciones, organizadas aproximadamente en el orden en el cual fueron adquiridos y procesados los datos. Los listados de los programas aparecen en el apéndice. Las secciones son: adquisición, calibración, identificación, combinación de las señales de respuesta lenta y rápida de la temperatura que son digitizados por separado, corrección del retardo y cálculo de la salinidad, y promediado de la presión.

a) Adquisición

Todos los datos descritos en este reporte fueron tomados usando una unidad sumergible (NBIS) Mark III, con una unidad de grabación diseñada y fabricada en SIO, la cual convierte la señal audio FSK en datos digitales. Los datos digitales son entonces, leïdos por una computadora IBM 9000 en tiempo real, y son ajustados y almacenados en discos flexibles. Se efectua un mïnimo de procesamiento en tiempo real debido a restricciones de tiempo en la computadora, sin embago, con propósitos de verificación, se imprimen, tanto en la terminal como en la impresora, valores submuestredos de los datos crudos. El programa de adquisición de datos verifica posibles errores de tiempo, (el tiempo es una variable en el flujo de datos) e interrupciones en la llegada de datos, asï como saturaciones del "buffer". El listado del programa de adquisición MAR85.FOR se encuentra en el apéndice.

b) Calibración

El CTD usado durante PC7 fue calibrado en el laboratorio PACODF (SIO) para precisión absoluta, de la presión y la resistencia de platino del termómetro, la respuesta de temperatura del sensor de presión e histérisis en el rango de presión de 0-2000 db. Los resultados se resumen en las Tablas 2 y Figuras 2. La precisión absoluta de temperatura es ± .002 ° C para el PRT. El sensor de presión tiene un desplazamiento de

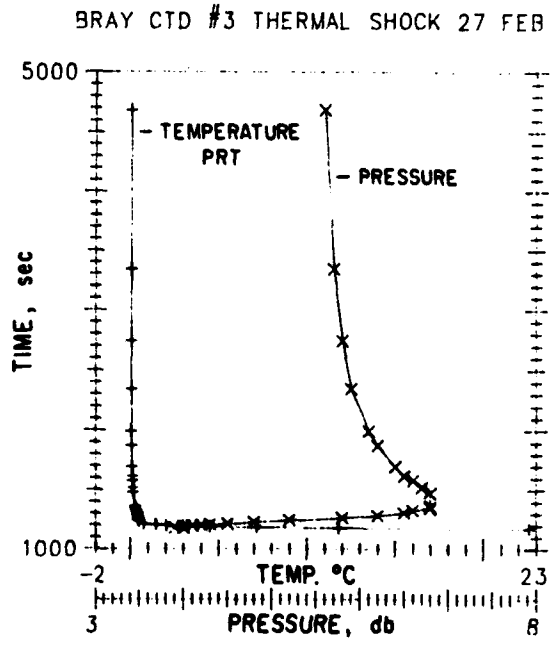


Figure 2a. Thermal Shock

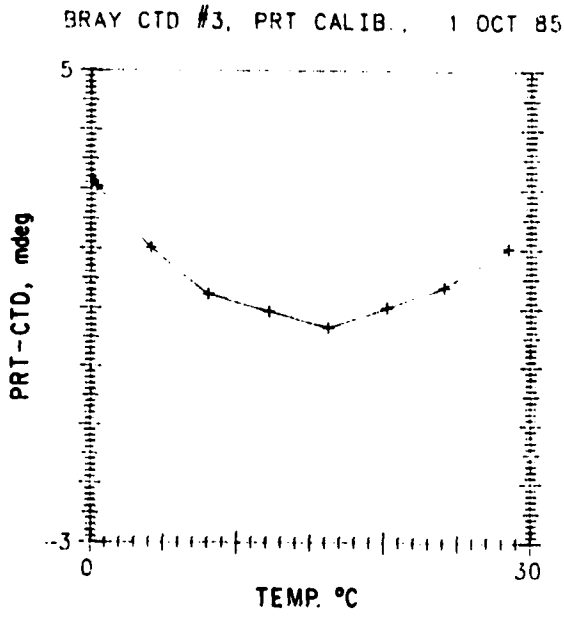


Figure 2b. PRT Calibration

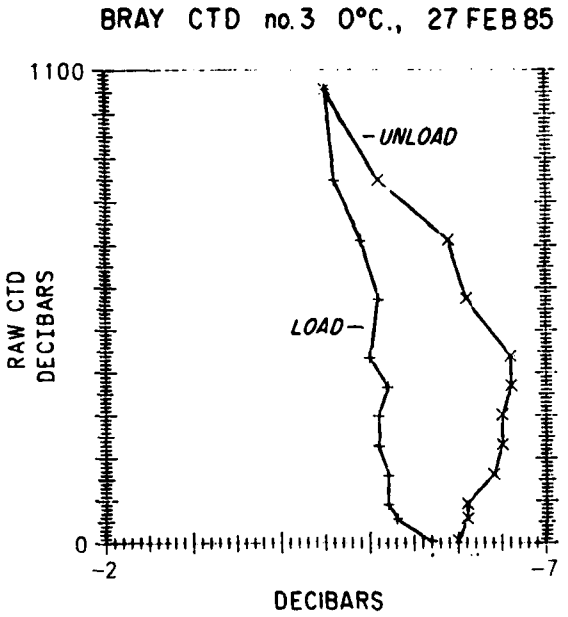


Figure 3a. Pressure sensor hysteresis, 0°C, pre cruise

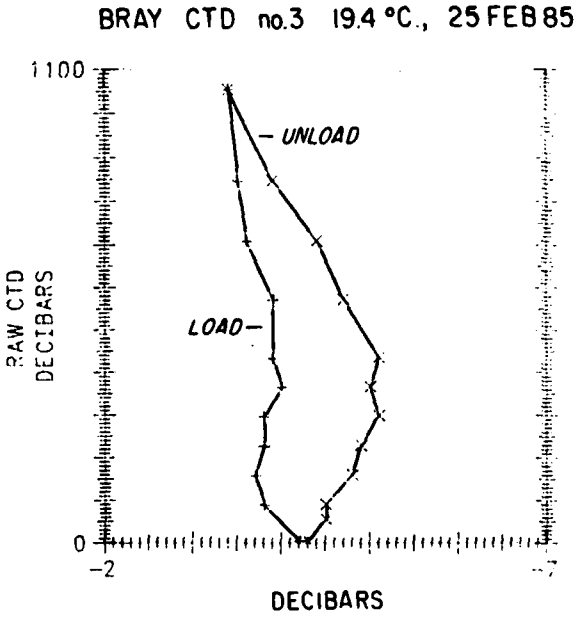


Figure 3b. Pressure sensor hysteresis, 19.4°C, pre cruise

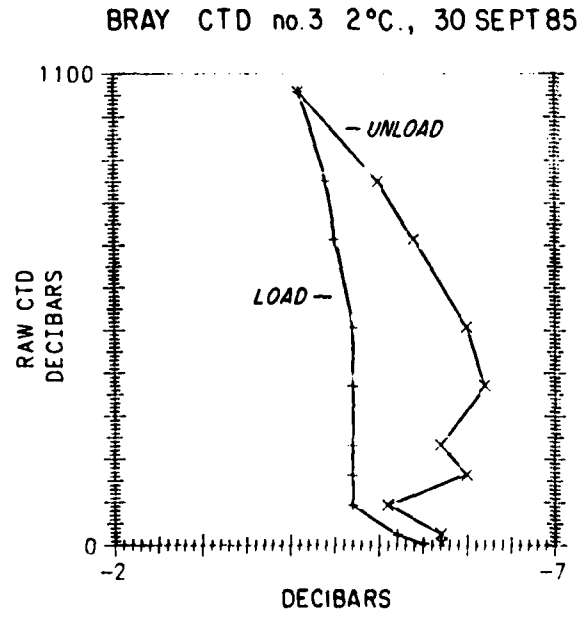


Figure 3c. Pressure sensor hysteresis, 2.0°C, post cruse

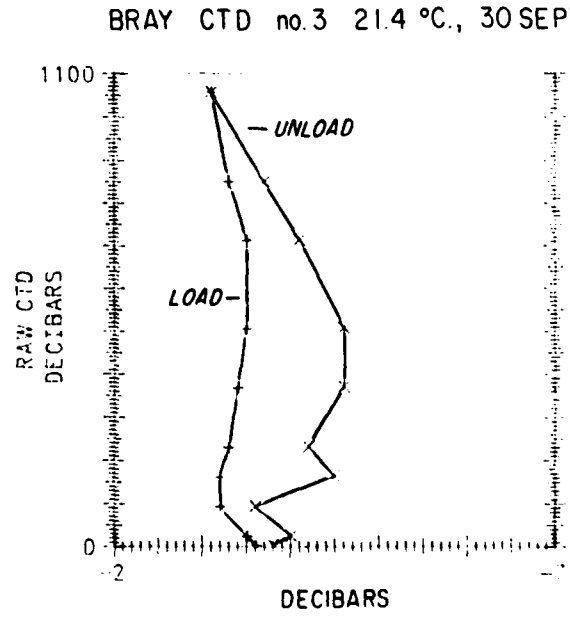


Figure 3d. Pressure sensor hysteresis, 21.4°C, post cruise

later fully processed using a new technique described later in this report, and the check samples compared with the 2 db average points as well as the raw data.

Interestingly, the processed data agree more consistently with the check samples than do the original raw data scans, even though only minor calibration connections to pressure (none to temperature or conductivity) were made during processing. The processing technique appears to provide a precise and accurate representation of the true temperature and salinity structure.

Three salt samples were analyzed for most casts: one near the surface, one near the bottom and one at mid-depth. The stations occupied are all shallower than about 1500 m, so there is no stable, isothermal deep water available for check samples. Nevertheless, the processed data agree with the salinometer to within ± 3 ppm for most of the points. The major exception to this occurred in the middle of the cruise, when we experienced difficulties with the salinometer. Figure 4 illustrates the time history of the check sample difference (salinometer - CTD) during the cruise. Surface, mid-depth and near-bottom samples are plotted with different symbols, and the groups of samples run at the same time (boxes of samples) are noted.

Boxes 2, 6, 7, 9R and 10R were run during periods when the salinometer was not working well. They will be excluded from the remaining analysis of salinity calibration. The points from these boxes show a much wider range of differences than the earlier and later samples.

In Figure 5 differences from the remaining 17 boxes are plotted as a function of depth. The deeper points, though few in number, are arguably in better agreement than those in the middle of the depth range. The largest number of points in any depth range is found in the surface layer. The distribution of points in that layer is remarkably Gaussian about a difference of zero, as can be seen in Figure 6. For the surface layer points alone (83 points) a mean difference of -0.12 ppm (.00012 ppt) and a standard deviation of 1.6 ppm is found. For all points at all depths (271 points) the mean is 0.2 ppm and the standard deviation is 2 ppm.

4.5 db; los errores de histérisis son 0(2 db). La conductividad es calibrada en el mar usando muestras de agua tomadas, con una roseta de botellas, durante los ascensos de la mayoría de los lances, con las botellas de muestreo se determinaron razones de conductividad usando un salinómetro Hytech y agua estándar Wormley del grupo P-96.

Para cada botella de muestreo se registraron valores crudos del CTD de presión, temperatura lenta y conductividad, conforme éstas fueron tomadas, y así tener una comparación, inmediata. Adicionalmente los ascensos fueron completamente procesados usando una nueva técnica la cual será descrita mas tarde en este reporte. Las botellas de muestreo fueron entonces comparadas tanto con puntos promediados cada 2 db como con los datos crudos. Interesantemente, los datos procesados concuerdan mas consistentemente con las botellas de muestreo que con los datos crudos, aun cuando fué hecha una calibración menor en conexiones de presión (nó en temperatura ni en conductividad) durante el procesado. La técnica de procesado parece proveer una exacta y precisa representación de la verdadera temperatura y de la estructura de salinidad.

Tres muestras de sal fueron analizadas para la mayoria de los lances: una cerca de la superficie, una cerca del fondo y otra en medio. Todas las estaciones ocupadas fueron mas someras que 1500 m, por lo tanto no hay disponible agua isotermal profunda para las botellas de muestreo. Sin embargo, los datos procesados concuerdan con el salinómetro en un rango de ± 3 ppm para la mayoría de los puntos. La excepción mayor ocurrió a la mitad del crucero, cuando tuvimos dificultades con los salinometros. La Figura 4 muestra un registro en tiempo de la diferencia (salinómetro - CTD) de las botellas de muestreo durante el crucero. Las muestras en la superficie, a la mitad y en el fondo fueron dibujadas con diferentes símbolos y se marcaron al mismo tiempo corridas de grupos de botellas de muestreo (cajas de muestras).

Las cajas 2, 6, 7, 9R y 10R fueron corridas durante los periodos en que el salinómetro no trabajó bien. Estas diferencias no se excluyeron del análisis restante de calibración de salinidad. Los puntos de estas cajas muestran un mayor

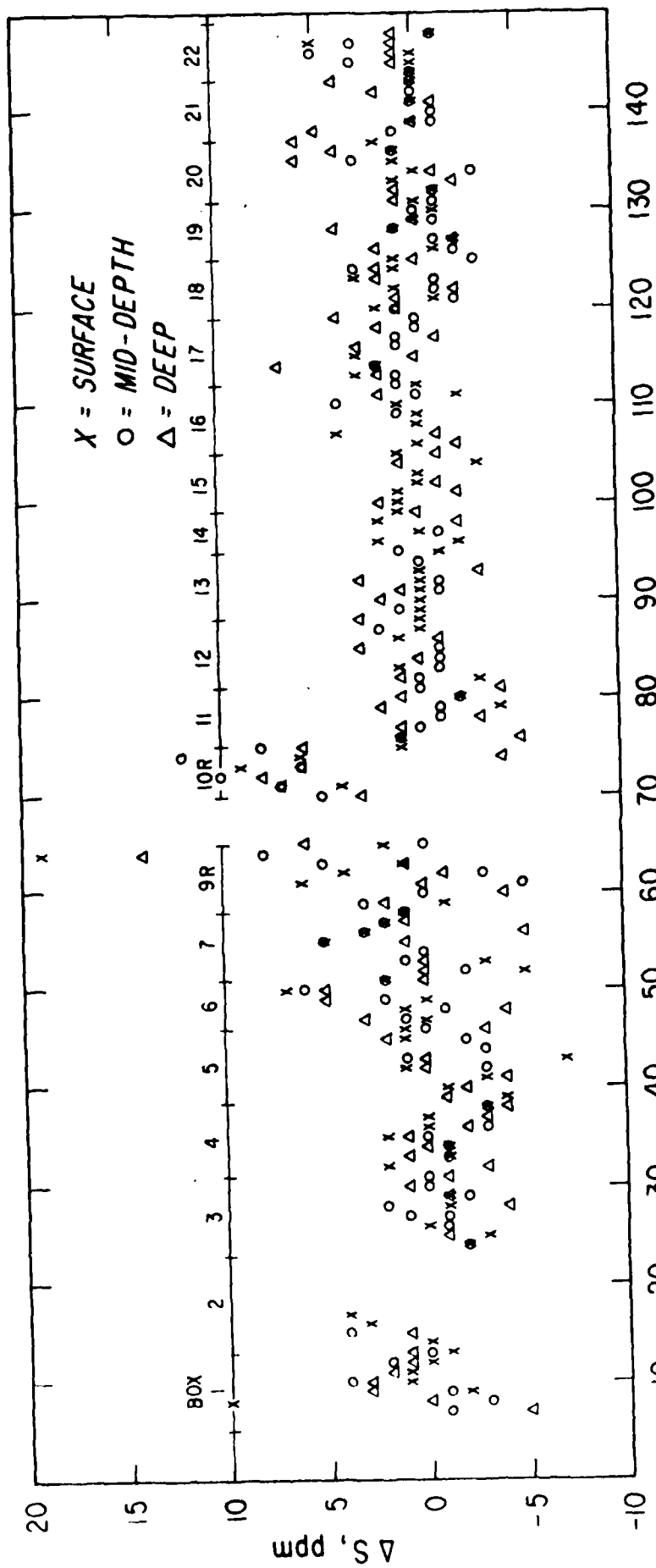


Figure 4. Distribution of salinity check samples with station number and sample box number.

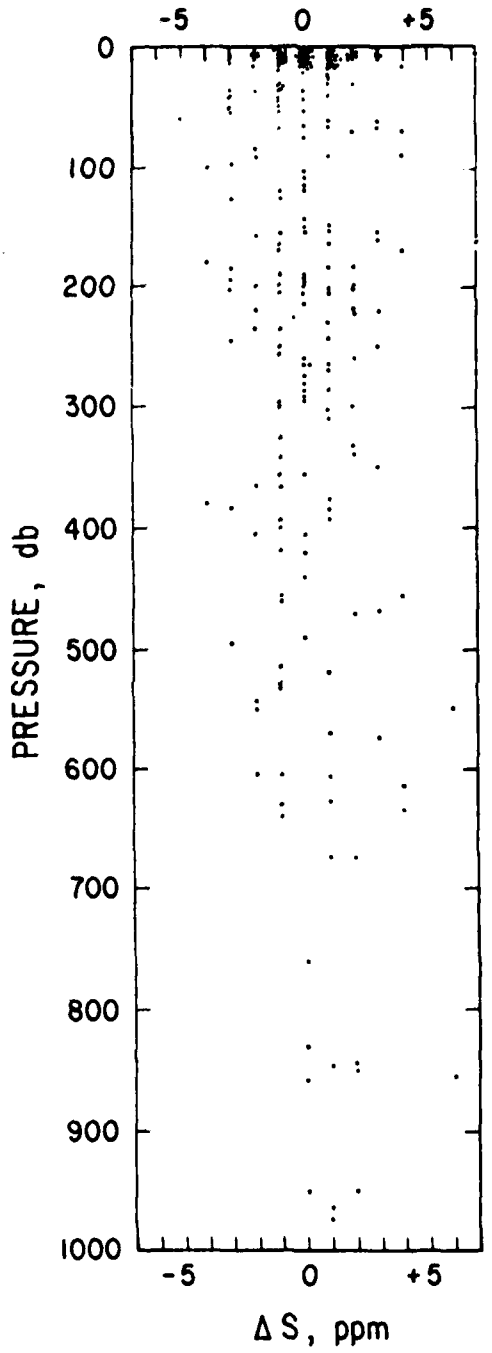


Figure 5. Distribution of salinity check samples with depth.

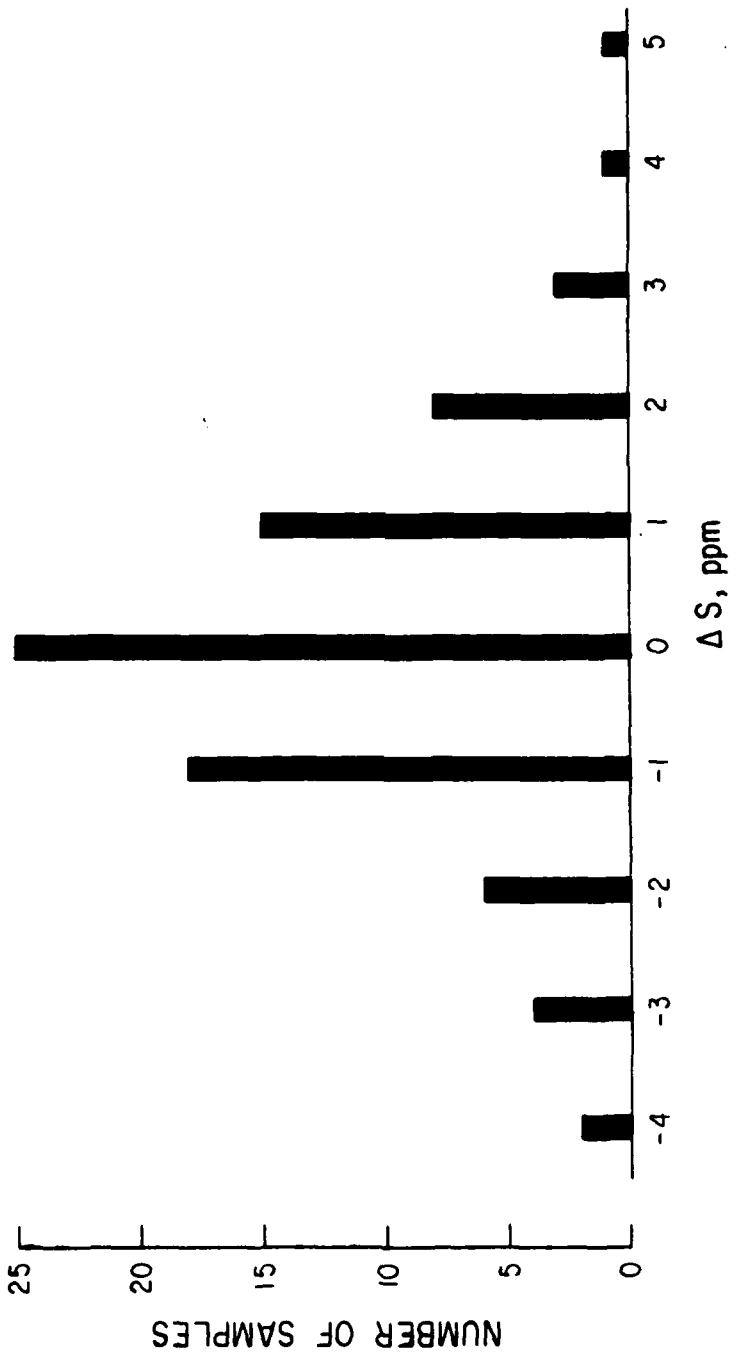


Figure 6. Distribution of near-surface check sample differences (salinometer - CTD).

As a result of the excellent statistical agreement between the salinometer and CTD data, no changes were made to the CTD conductivity values during processing. Similarly, temperature was not altered; a pressure offset of -4.5 db was applied to the raw data. Overall accuracy of the data is expected to be better than ± .005 ° C, ± .005 psu, ± 5 db.

It should be noted that in the raw data there is a small systematic difference in thermocline T vs S between up- and down-traces. This is apparently due to the slow equilibrium of the pressure housing and electronics in regions of rapid temperature change. The error in temperature thus introduced is about 5 mdeg; the corresponding error in salinity (due to the temperature error in the salinity calculation) is 5 ppm. The sense of the error is that downtraces appear warmer and fresher than they should, and uptraces colder and saltier. This error does not occur in the deep water or in the CTD data taken during rosette samples, apparently because the system is nearly in thermal equilibrium. No correction for this error has been applied to any of the data presented in this report.

c) Error Identification

After the data are acquired, a separate program is used for processing (see APROC.FOR and ANAW.FOR for program listings). The first stage of processing is error identification, in which two simple editing criteria are applied. The first is an interval criterion requiring that data fall into set ranges. Ranges used are: 0 to 2000 db for pressure, 0 to 30 ° C for temperature, and 30 to 70 mmho for conductivity. In addition, the first differences (scan to scan) of the raw data are constrained to fall within .5 db, 0.10 ° C and 0.20 mmho. No further error checking is done on the raw data. Data which is rejected is not interpolated. Rejected scans are flagged in a special error file for each station. No significant data gaps were encountered, and very few errors were found away from the surface and away from rosette bottle trips (where errors are expected).

After processing is completed, the 2 db averaged data are checked visually for bad points. The few points which were altered are

rango de diferencias que el de las muestras anteriores y posteriores.

En la Figura 5 se marcan las diferencias de las 17 cajas restantes en función de la profundidad. Los puntos mas profundos, aunque pocos en número, estan argumentablemente en mejor concordancia que aquellos de la mitad de la profundidad. El mayor número de puntos en el rango de profundidad se encuentra en la capa superficial. La distribución de los puntos en esta capa es remarcablemente Gaussiana con respecto a la diferencia igual a cero, como se puede ver en la Figura 6. Para sólo los puntos de la capa superficial (83 puntos) obtuvimos una diferencia media de -0.12 ppm (.00012 ppt) y una desviación estandar de 1.6 ppm. Para todos los puntos en todas las profundidades (271 puntos) la media es 0.2 ppm y la desviación estandar es 2 ppm.

Como un resultado de la excelente concordancia estadística entre los datos del salinómetro y el CTD, no se hicieron cambios en los valores de conductividad del CTD durante el procesado. Similarmente, la temperatura no fué alterada; un desplazamiento de presión de -4.5 db fué aplicado a los datos crudos. Se espera que la precisión de los datos sea mejor que ± .005 ° C, ± .005 psu y ± 5 db.

Deberá hacerse notar que en los datos crudos hay una pequeña diferencia sistemática, en T vs S en la termoclina, entre el ascenso y el descenso. Esto es aparentemente debido al lento equilibrio térmico entre la envoltura estanca y los circuitos electrónicos en regiones de cambios rápidos de temperatura. El error en temperatura debido a esto es de aproximadamente 5 mdeg; el correspondiente error en salinidad (debido al error de temperatura) es 5 ppm. El significado de este error es que los descensos aparecen mas calientes y menos salinos de lo que deberían de ser, y los ascensos mas fríos y salinos. Este error no ocurre en aguas profundas o en datos de CTD tomados durante muestras con roseta, aparentemente debido a que el sistema esta cercano a un equilibrio termal. No se hicieron correcciones para este error en los datos presentados en este reporte.

c) Identificación del error.

listed in Table 3. The new values are arithmetic interpolations between points on either side of the bad points. Uptraces rather than downtraces appear for several stations where irreparable errors occurred. In most of these cases there is a problem with the conductivity signal, apparently due to fouling of the sensor. A notation is found in the header of the stations where an uptrace is used. Those stations are: 4, 29, 30, 38, 62, 66, 77, 87, 99, 100, 104, 108, 122, 125, 132, 144 and 148.

d) Combination of Fast and Slow Temperature Signals

The NBIS fish used in these stations has a separately digitized fast response thermistor (FRT) signal and a data acquisition rate of 25 hz. (This differs from the 'standard' Mark III, which samples at 32.5 hz but has a single analog combination of FRT and PRT signals for temperature). A new algorithm for combining fast and slow temperatures was developed for processing these data. It is described more fully in Bray (1986).

Conceptually, the processing problem is the following. The FRT, with a response time of about 80 msec, contains most of the high frequency variance of the true temperature. However, the FRT is not a stable temperature measurement, in that it is a strong function of pressure and temperature. The PRT, on the other hand, is extremely stable, but, with a response time of 270 msec, blurs the true temperature signal over several scans of CTD data (one data scan is 40 msec). Ideally, we would like to combine the stability of the PRT and the high frequency information of the FRT.

The new algorithm is a simple recursive filter applied to both the PRT and FRT. It is a centered running mean boxcar filter with 2300 points, corresponding to 92 seconds or 92 m at a lowering rate of 60 m/min. The filter is applied to the time series data after error checking. The combined temperature T_c is then estimated by

$$T_c(t) = < T_s > (t) - < T_f > (t) + T_f(t)$$

where subscripts are s for slow and f for fast, and $< \ >$ indicate filtered data. The subroutine which does this calculation is called FAST2. The length of the filter is critical to the success

Despues de adquiridos los datos, otro programa es usado para el procesado (ver los listados de los programas APROC.FOR y ANAW.FOR). La primera etapa del procesado es la identificación de errores, en la cual se aplican dos criterios simples de editado. El primero es un criterio de intervalo que ordena a los datos de acuerdo a una serie de rangos. Los rangos usados son: de 0 a 2000 db para la presión, de 0 a 30 ° C para la temperatura, y de 30 a 70 mmho para conductividad. Además la primera diferencia de los datos crudos esta restringida a caer dentro de .5 db, 0.10 ° C y 0.20 mmho, respectivamente. No hay verificaciones adicionales de errores efectuados en los datos crudos. Los datos que son rechazados no son interpolados. Los registros rechazados son identificados y escritos en un archivo de errores para cada estación. No se encontraron interrupciones significantes en los datos y muy pocos errores fueron encontrados lejos de la superficie y lejos de los disparos de la roseta de botellas, donde se suelen esperar errores.

Despues de que el procesado está terminado, se verifican los datos visualmente, para localizar datos disparados. Los pocos puntos que fueron alterados estan listados en la tabla 3. Los valores nuevos son una interpolación aritmética entre los puntos vecinos de los puntos malos. En los ascensos, mas que en los descensos, aparecieron, en algunas estaciones, errores irreparables. En lo mayoría de etos casos hay un problema con la señal de conductividad, aparentemente debido a impurezas del sensor. Una nota aparece en la cabezera de aquellas estaciones donde se usaron ascensos. Estas estaciones son: 4, 29, 30, 38, 62, 66, 77, 87, 99, 100, 104, 108, 122, 125, 132, 144 y 148.

d) Combinación de las señales rápida y lenta de temperatura.

La unidad sumergible del NBIS usada en estas estaciones tiene una digitalización por separado de la señal de respuesta rápida del termistor (RRT) y una razón de adquisición de datos de 25 hz. (Esta difiere del modelo Mark III, en el cual las muestras son a 32.5 hz, pero tiene una sola combinación análogica de las señales de temperatura (RRT) y (PRT). Se desarralló un nuevo algoritmo donde se com-

Station PC7	pressure	Temperature orig.	new	Salinity orig.	new	Comments
004	382	9.142		34.653	34.669	
	404	8.865		34.657	34.648	
	416	8.500		34.624	34.635	
015	68	14.510		35.083	35.095	
016	6	16.027		35.202	35.212	
	8	15.631		35.179	35.214	
	10	15.625		35.203	35.216	
039	52	15.568		35.192	35.241	
053	554	7.075	7.313	34.748	34.574	
054	374	11.676	11.769	34.844	34.846	
	376	11.600	11.757	34.836	34.845	
061	328	9.006	9.420	34.945	34.705	
063	218	11.750		34.834	34.844	
082	276	12.084		34.847		gap
087	22	15.876		35.210	35.263	
	24	15.862		35.223	35.246	
108	10	16.230		35.160	35.179	
	12	16.229		35.132	35.177	
122	588	11.315		34.760	34.764	
124	586	11.504		34.767	34.790	
	588	11.502		34.792	34.790	
125	48	15.729		35.162	35.174	
140	566	8.117		34.598	34.613	
142	56	12.846		34.858	34.887	
143	46	13.412		34.920		gap
	48	13.438		34.922		
	50	13.451		34.921		
	52	13.412		34.950		
	54	13.385		34.919		
	56	13.358		34.918		
144	122	13.410	13.344	34.895	34.885	
146	50	14.725		35.007		gap

Table 3: Interpolated points

of the algorithm; filters shorter than 1500 points are inferior for subsequent salinity calculations. This is apparently due to the relatively long time scale of the FRT drift. However, little difference was seen in the salinity calculations done using 1500 points and 2300 points.

e) Lag Correction and Salinity Calculations

After the PRT and FRT signals are combined, spectral analyses indicate that there is still a lag of about 2 data scans between the combined temperature and the conductivity signal. This is corrected using a scheme similar to that developed by Horne and Toole (1980). In that approach, filters are constructed for pressure, temperature and conductivity according to theoretical descriptions of sensor response as a function of time. Weights used in these filters are given in Table 4; the filters are not recursive. A separate program called ANAW.FOR is used to compute three sets of filter weights which are applied to pressure, temperature and conductivity. The lag correction, while effective, is not as important in the calculation of spike-free salinity as is the combination of fast and slow temperatures. Details of the lag correction scheme are given in Bray (1986). Salinity is calculated from lagged temperature and filtered pressure and conductivity using the subroutine SAL78 (Fofonoff and Millard, 1983) for practical salinity.

f) Pressure Averaging.

After lag correction and salinity calculation, the data are accumulated in 2 db bins (± 1 db about even pressures, starting with 2 db, or the shallowest even pressure deeper than 2 db) and averaged to form an even 2 db series. All data within the range is averaged; no data are discarded. For a uniform lowering rate of 60 m/min, this involves about 2 seconds of data per bin, or 50 data scans. Near the top and bottom of the cast more points are included. Pressure averaging is done in subroutine PRSORT.

3. Data Display Notes

The 2 db data series are plotted on the following pages. All points in the series are plotted, but only subsampled 'standard' depth data are listed.

binan las respuestas rápida y lenta de las temperaturas para el procesado de estos datos. Este es descrito completamente en Bray (1986).

Conceptualmente, el problema de procesamiento es el siguiente. La RRT, con una respuesta en tiempo de alrededor de 80 msec, contiene la variación de frecuencia alta de la temperatura verdadera. Sin embargo, la RRT no es una medida estable de temperatura, ya que ésta es una fuerte función de la presión y de la temperatura. La RPT, por otro lado, es extremadamente estable pero con una respuesta en tiempo de 270 msec, por la cual encubre la señal verdadera de temperatura sobre varios registros de datos de CTD (un registro de datos es de 40 msec). Idealmente nos gustaría combinar la establidad del RPT y la información de frecuencia alta del RRT.

El nuevo algoritmo es un simple filtro recursivo aplicado a ambos, el RPT y RRT. Este es un promedio corrido de 2300 puntos que coresponden a 92 segundos o 92 metros considerando una razón de descenso de 60 m/min. El filtro es aplicado a las series de datos despues de haber sido verificados los errores. La temperatura combinada es entonces estimada por

$$T_c(t) = < T_l > (t) - < T_r > (t) + T_r(t)$$

donde el subíndice l indica lenta r indica rápida, y $< >$ indica filtrado de datos. La subrutina que efectúa estas operaciones se llama FAST2. La longitud del filtro es crítica para el éxito del algoritmo; filtros más chicos que 1500 puntos son claramente peores para cálculos subsecuentes de salinidad. Esto se debe aparentemente, a que la escala de tiempo de deriva del RRT es relativamente larga. Sin embargo, se obtuvieron pequeñas diferencias en los cálculos de salinidad usando 1500 puntos y 2300 puntos.

e) Correcciónes del retardo y cálculos de salinidad.

Despues de combinadas las señales RPT y RRT el análisis espectral indica que hay todavía un retardo de alrededor de 2 registros de datos entre la temperatura combinada y la señal de conductividad. Esto es corregido usando un esquema similar al desarollado por Horne and Toole (1980). Según dichos autores se construyen filtros para la presión, temperatura y

N	temperature weight	conductivity weight	pressure weight
1	-.0357	-.0048	.0064
2	.0041	.0075	-.0023
3	.0239	.0008	-.0084
4	-.0058	-.0089	-.0032
5	-.0368	.0046	.0075
6	.0424	.0077	.0092
7	.0063	-.0105	-.0029
8	-.0456	-.0037	-.0147
9	.0044	.0183	-.0065
10	.0875	-.0093	.0177
11	-.0982	-.0222	.0252
12	-.0597	.0375	-.0161
13	.2605	.0087	-.0682
14	-.1280	-.1200	.0008
15	-1.0870	.2404	.2967
16	.7074	.7074	.5177
17	1.5679	.2404	.2967
18	-.1120	-.1200	.0008
19	-.2431	.0087	-.0682
20	.1348	.0375	-.0161
21	.0539	-.0222	.0252
22	-.1062	-.0093	.0177
23	.0323	.0183	-.0065
24	.0383	-.0037	-.0147
25	-.0273	-.0105	-.0029
26	-.0271	.0077	.0092
27	.0460	.0046	.0075
28	-.0120	-.0089	-.0032
29	-.0222	.0008	-.0084
30	.0109	.0075	-.0023
31	.0262	-.0048	.0064

Table 4: Lag correction filter weights

* * * * * * * * * * *

Important: Temperature traces (in degrees C) are bold solid lines, salinity traces (in practical salinity units) are light solid lines and σ_θ traces are dots (actual data points).

* * * * * * * * * * *

Station header information is also listed on each page. It is mostly self-explanatory, but the following may be of interpretative help. Across the top of each page are: station sequential number, latitude, longitude date, hour (GMT), cast depth (in db) and water depth in meters, corrected for depth of hull transducer, but not for sound speed variations.

Below the plot is ancillary header information: the year day with decimal (GMT) time; sea surface temperature, dry and wet bulb air temperatures; wind speed in kt, and CTD identification number. The next two lines are comments. The first is the original comment entered at the beginning of data acquisition, and the second is one entered at the processing stage. It includes header processing date and information about modifications to header information made after the data were acquired. The second comment is primarily for our own use.

4. Potential Temperature vs Salinity Diagrams

The stations are divided into regional surveys, with a composite potential temperature vs salinity (Θ *vs* S) plot and location map constructed for each survey (Figures 8a to 8j). The surveys are:

1) Yoyos near the San Esteban sill (Stations PC7001 to PC7006, designated CAP-1 to CAP-6).

2) First of two Northern Gulf Surveys (Stations PC7007 to PC7040, designated NG1-1 to NG1-34).

conductividad de acuerdo a la descripción teórica de la respuesta del sensor como una función del tiempo. Los pesos usados en estos filtros estan dados en la tabla 4; los filtros no son recursivos. Un programa separado llamado ANAW.FOR es usado para calcular los 3 grupos de pesos de los filtros, los cuales son aplicados a la presión, temperatura y conductividad. La corrección del retardo, aunque efectiva, no es tan importante en los cálculos de salinidad libre de picos como lo es la combinación de las temperaturas rápida y lenta. Detalles del esquema de corrección del retardo están dados en Bray (1986). La salinidad es calculada a partir de la temperatura retardada y la presión y conductividad filtradas, usando la subrutina SAL78 (Fofonoff and Millard, 1983) para salinidad práctica.

f) Presión promediada.

Despues de la corrección del retardo y los cálculos de salinidad, los datos son acumulados en grupos de 2 db (± 1 db alrededor de las presiones pares, empezando con 2 db, o la presión par más somera mayor que 2 db) y son promediados para formar una serie cada 2 db. Todas las datos dentro del rango son promediados; ningún dato es descartado. Para una razón de descenso uniforme de 60 m/min, esto podría inplicar alredecor de 2 segundos de datos por grupo, o 50 registros de datos. Cerca de la superficie y del fondo del lance se incluyeron mas puntos. El promedio de la presión se efectua en la subrutina PRSORT.

3. Notas sobre la exposición de los datos.

Las series de datos cada 2 db son graficadas en las páginas siguientes. Todos los puntos de las series son graficados, pero sólo se enlistan series submuestras a profundidades standars.

* * * * * * * * * * *

Importante: Los valores de temperatura (en grados ° C) estan graficados con lineas gruesa, las de salinidad (en unidades prácticas de salinidad) estan graficados con lineas delgadas y los de σ_θ estan graficados con lineas punteadas.

3) Sill Survey, across San Esteban sill (Stations PC7041 to PC7061, designated Sill-1 to Sill-21).

4) Eastern San Esteban Basin Tiburon Basin Survey (Stations PC7062 to PC7069, designated T1 to T8).

5) Western north-south section through Ballenas-Salsipuedes Channel (Stations PC7070 to PC7084, designated WS-1 to WS-15).

6) Second of two Northern Gulf Surveys (Stations PC7085 to PC7124, designated NG2-1 to NG2-34).

   6a) Subsection of NG2: special north-south section through the deep basins of the northern Gulf (Stations PC7104 to PC7111, designated SF-1 to SF-8).

7) Eastern north-south section east of Is. Angel de la Guarda (Stations PC7125 to PC7146, designated ES-1 to ES-18).

   7a) Subsection of ES: San Pedro Mártir basin survey (Stations PC7138 to PC7143, designated ESP-1 to ESP-6).

8) Central Guaymas Basin (stations PC7147 to PC7149, designated B-4 to B-6).

* * * * * * * * * * *

La información sobre la identificación de las estáciones esta también enlistada en cada página. Es en su mayoría fácil de interpretar, pero lo que sigue a continuación puede ayudar. En el margen superior de cada página están: el número secuencial de la estación, latitud, longitud, fecha hora (GMT), profundidad del lance (en db) y la profundidad en metros, corregida por la profundidad del transductor en el casco del barco, pero no por las variaciónes de la velocidad del sonido.

Debajo de la gráfica hay información adicional: el día del año con tiempo decimal (GMT); temperatura de la superficie del mar, temperatura del aire seco y humedad; velocidad del viento en nudos y el número del CTD. Las dos lineas siguientes son comentarios. El primero es un comentario original introducido al principio de la adquisición de los datos, y el segundo fue introducido en una etapa del procesamiento. Este incluye fecha e información relacionadas con las modificaciones hechas a la información de la cabecera despues de que los datos fueron adquiridos. El segundo comentario es para nuestro uso propio.

4. Diagramas de Temperatura Potencial vs Salinidad

Las estaciones fueron dividas de acuerdo a muestras y se incluye un mapa de localización al principio de cada muestra que incluye un diagrama de temperatura vs salinidad (Fig. 8a-8j). Las muestras son:

1) Yoyos cerca del umbral de San Esteban (Estaciones PC7001 a PC7006, designadas como CAP-1 a CAP-6).

2) El primero de dos muestras en la parte Norte del Golfo (Estaciones PC7007 a PC7040, designadas como NG1-1 a NG1-34.

3) Muestra através del umbral de San Esteban (Estaciones PC7041 a PC7061, designadas como Sill-1 a Sill-21)

4) Muestras en las cuencas tiburón y San Esteban parte Este (Estaciones PC7062 a PC7069, designadas como T1 a T8).

5) Muestra através del canal de Ballenas-Salsipuedes sección Nor-Sur Oeste (Estaciones PC7070 a PC7084, designadas como WS-1 a WS-15).

6) Segundo de dos muestras en la parte Norte del Golfo (Estaciones PC7085 a PC7124, designadas como NG2-1 a NG2-34).

6a) Muestra especial NG24 através de cuencas profundas en la parte Norte del Golfo, sección Norte-Sur (Estaciones PC7104 a PC7111, designadas como SF-1 a SF-8).

7) Muestra en la parte Este de la isla Angel de la Guarda, sección Nor-Sur Este (Estaciones PC7125 a PC7146, designadas como ES-1 a ES-18).

7a) Muestra en la cuenca San Pedro Martir subsección Sur-Este (Estaciones PC7138 a PC7143, designadas como ESP-1 a ESP-6).

8) Cuenca Guaymas, parte central (Estaciones PC7147 a PC7149, designadas como B-4 a B-6).

References

Bray, N. A., 1986: Salinity calculation techniques for separately digitized fast response and platinum resistance CTD temperature sensors. (submitted to *Deep Sea Research*).

Fofonoff, N. P. and R. C. Millard, 1983: Algorithms for computation of fundamental properties of seawater. UNESCO Technical Papers in *Marine Science*, 44, 53 p.

Horne, E. P. W. and J. M. Toole, 1980: Sensor response mismatches and lag correction techniques for temperature-salinity profilers. *J. Phys. Oceanogr.*, 10, 1122-1130.

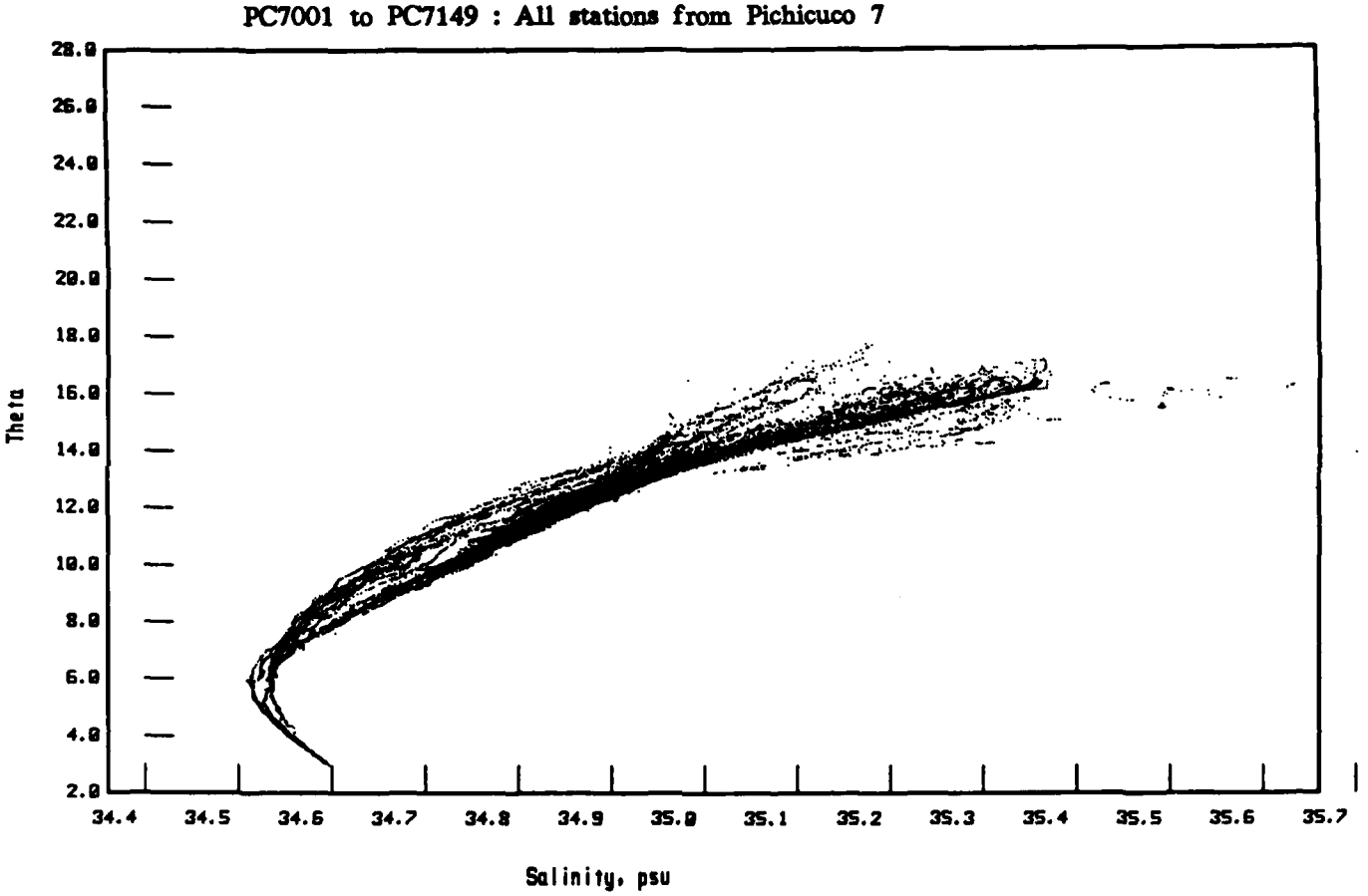
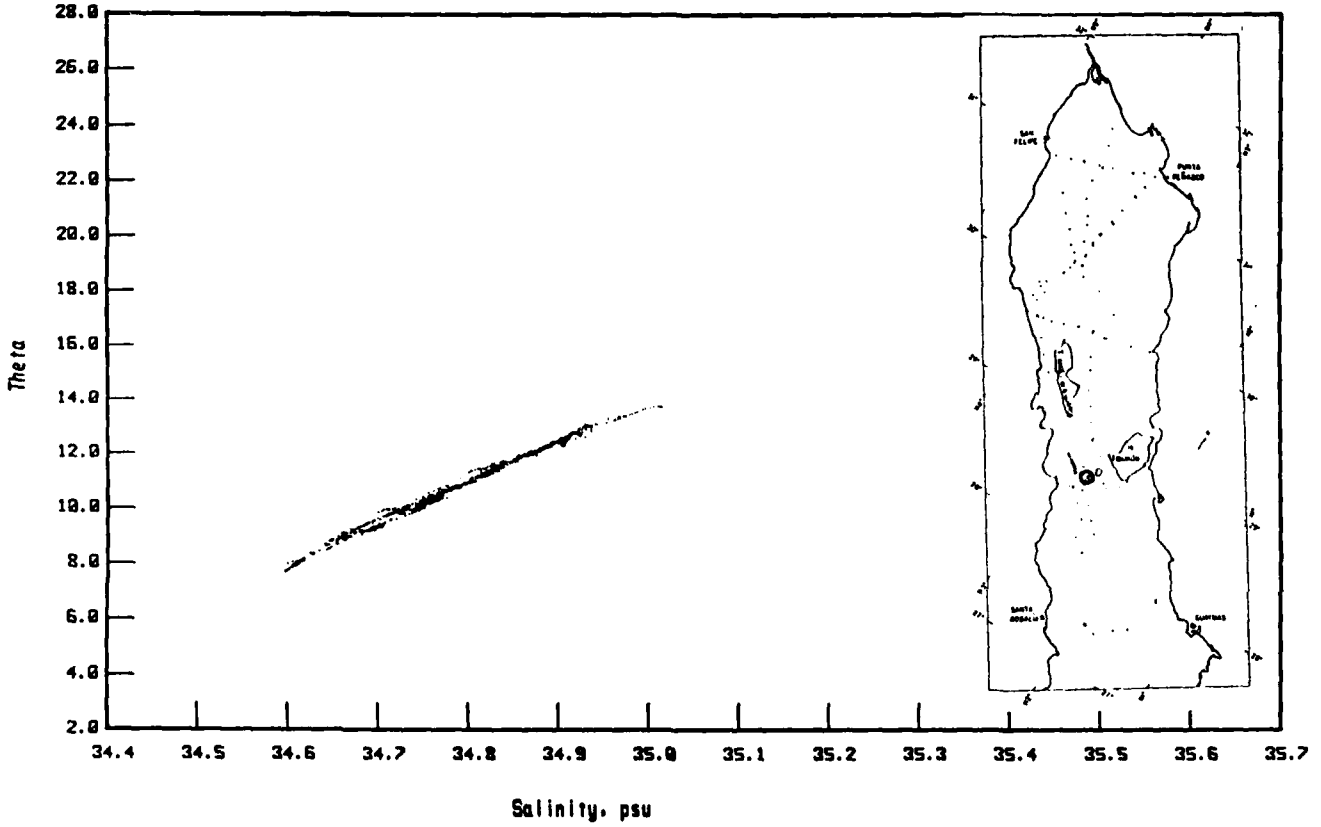
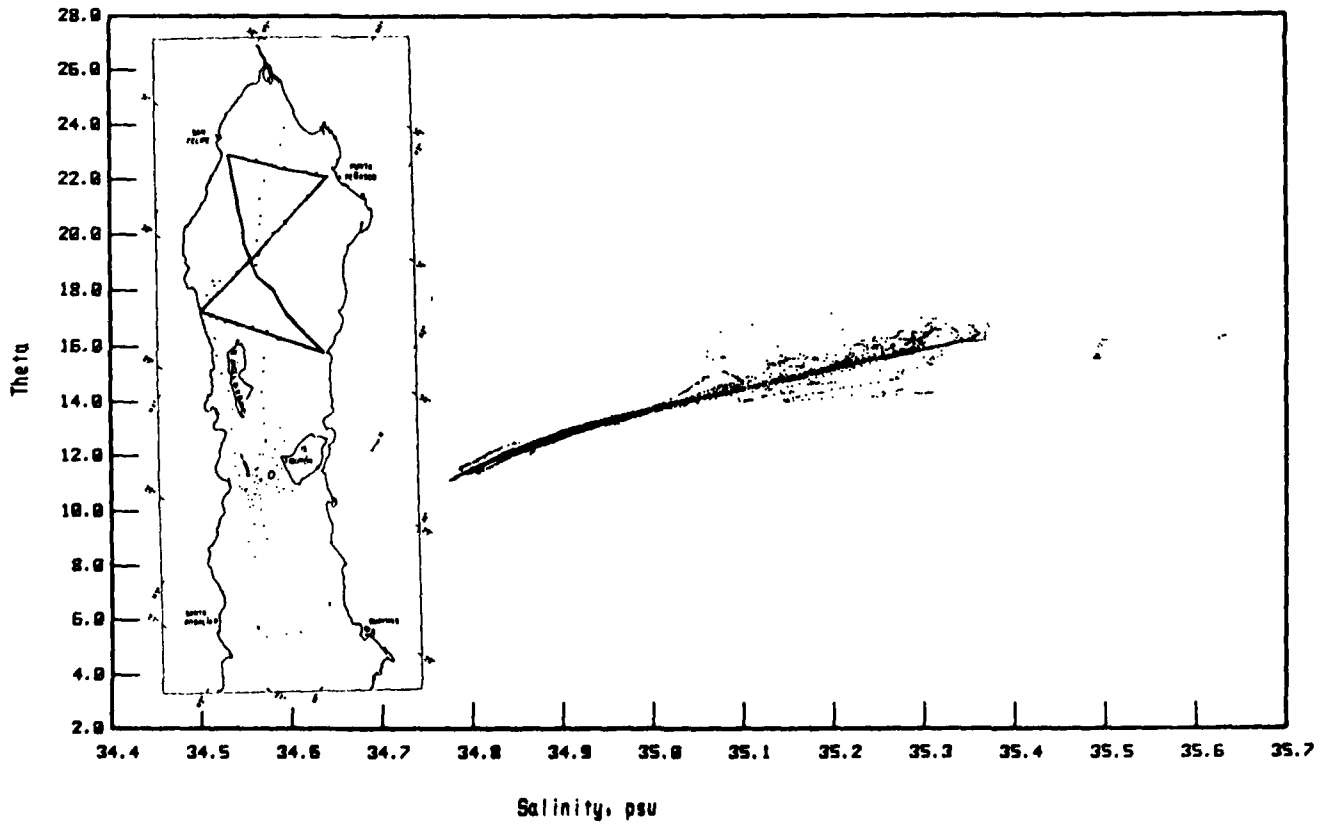


Figure 7. Composite potential temperature vs salinity diagram.

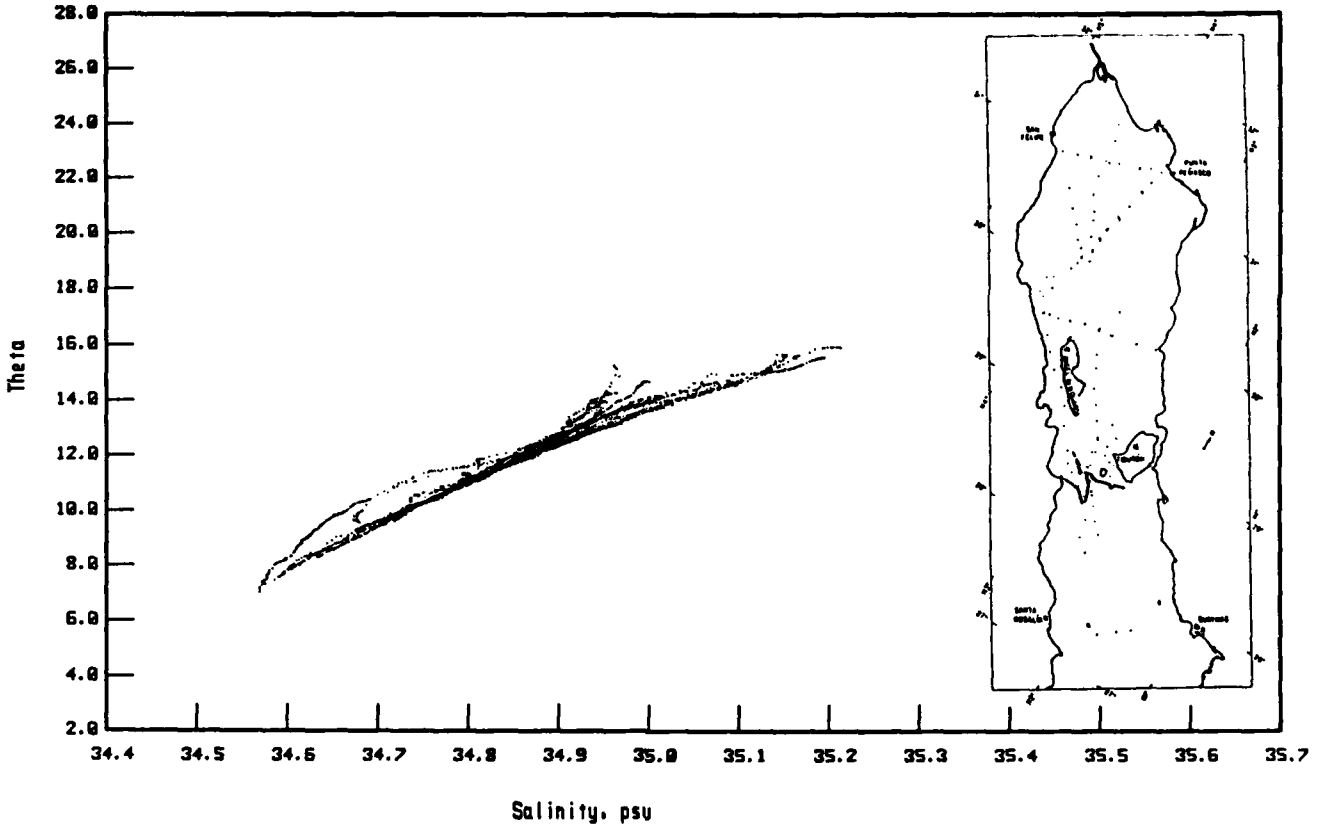
8a PC7001 to PC7006 : CAP-1 to CAP-6 : Yoyos near sill



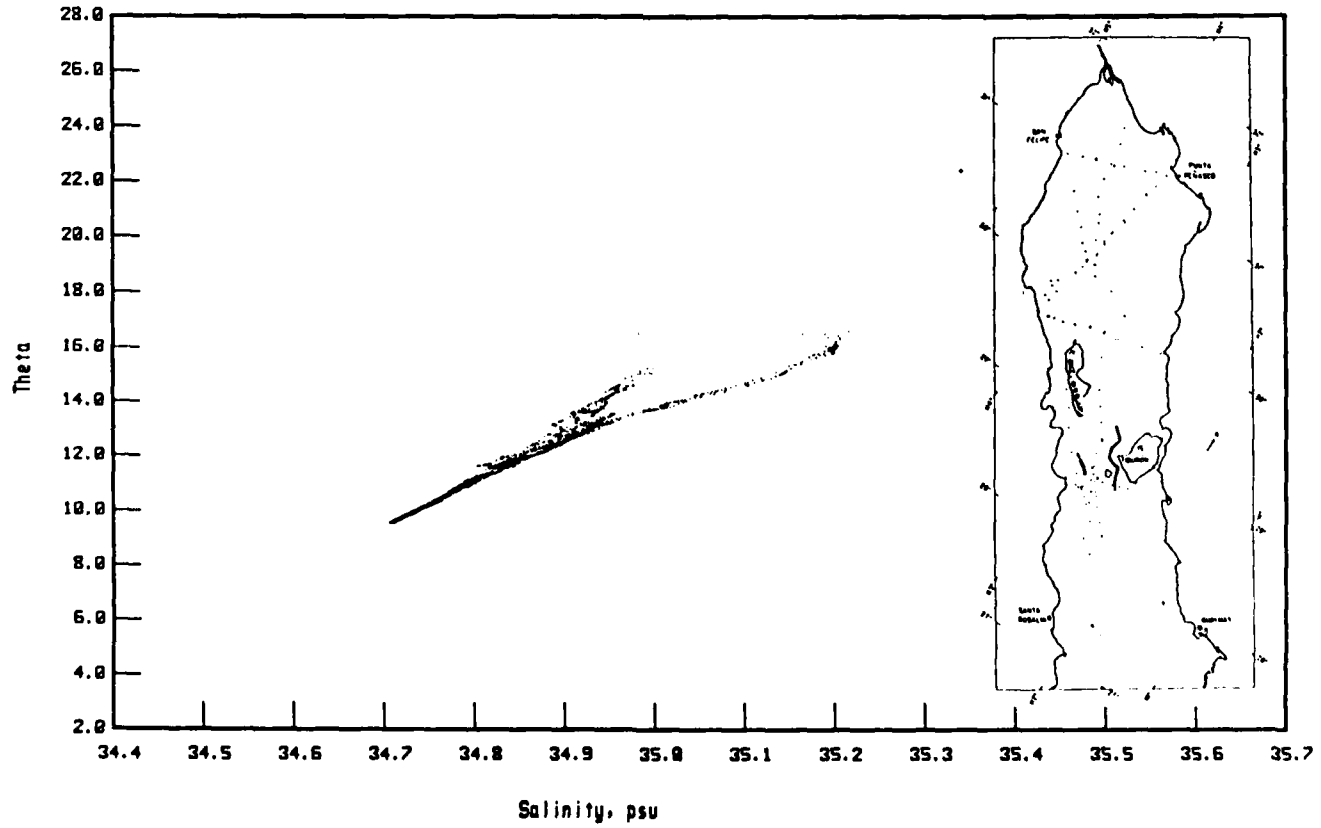
8b PC7007 to PC7040 : NG1-1 to NG1-34 : First northern gulf survey



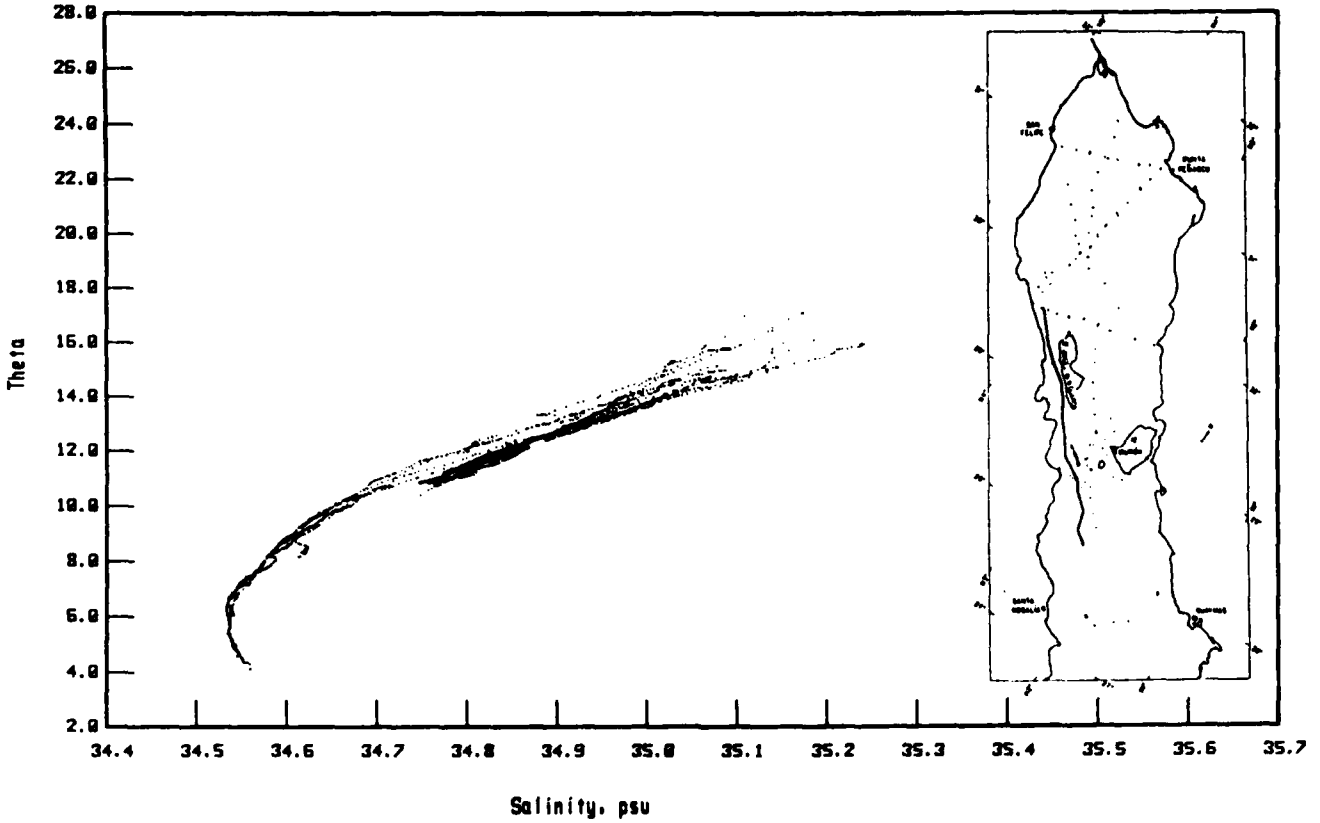
8c PC7041 to PC7061 : Sill-1 to Sill-21 : Across-sill survey



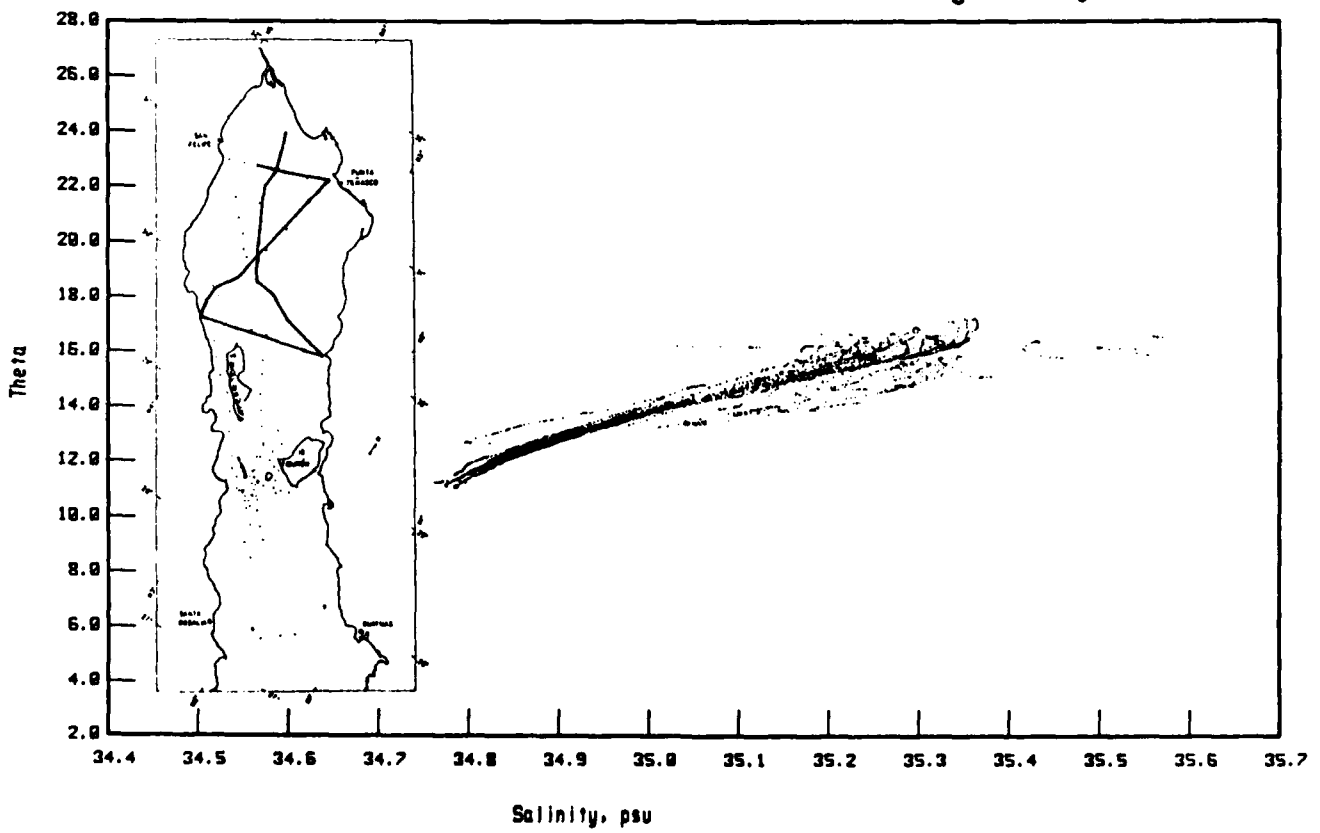
8d PC7062 to PC7069 : T1 to T8 : Eastern San Esteban basin survey



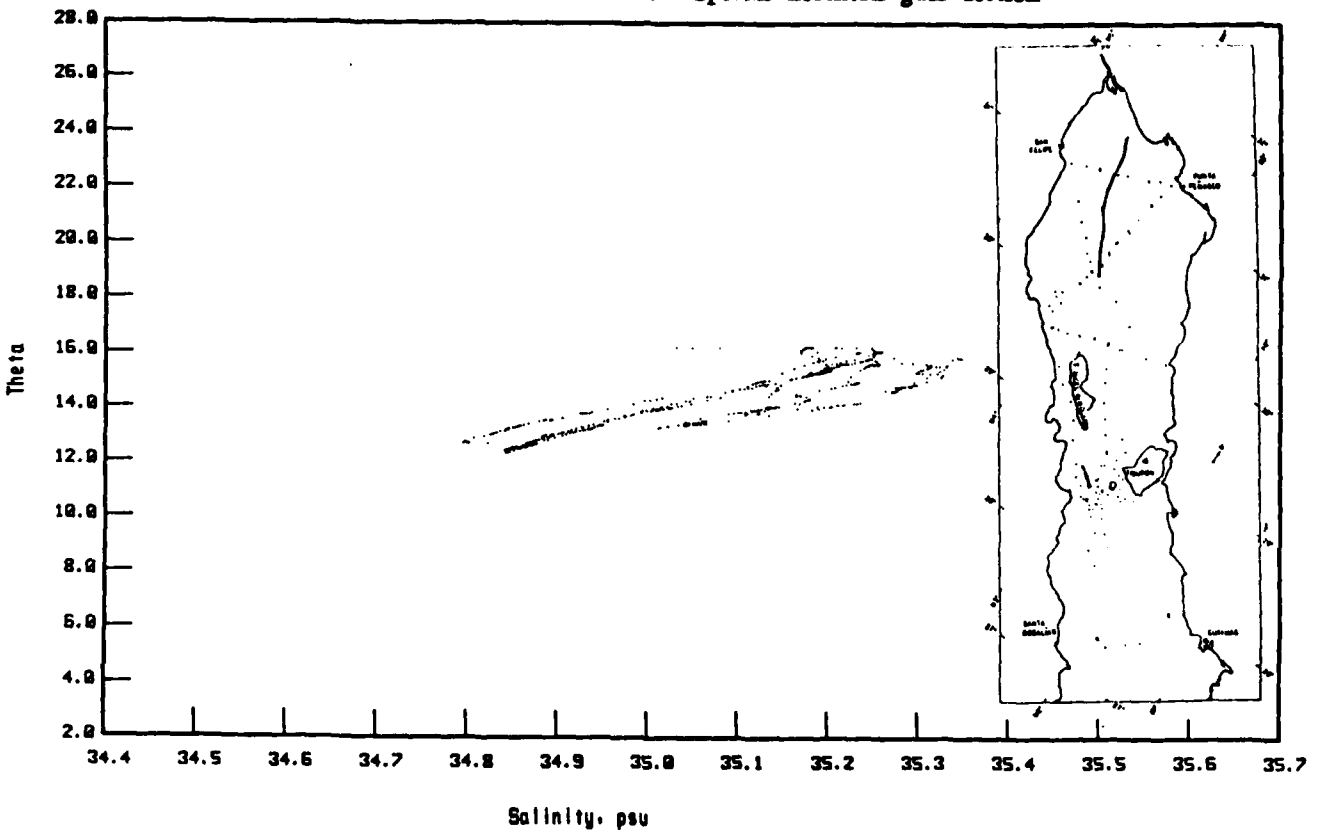
8e PC7070 to PC7084 : WS-15 to WS-1 : Western N-S section



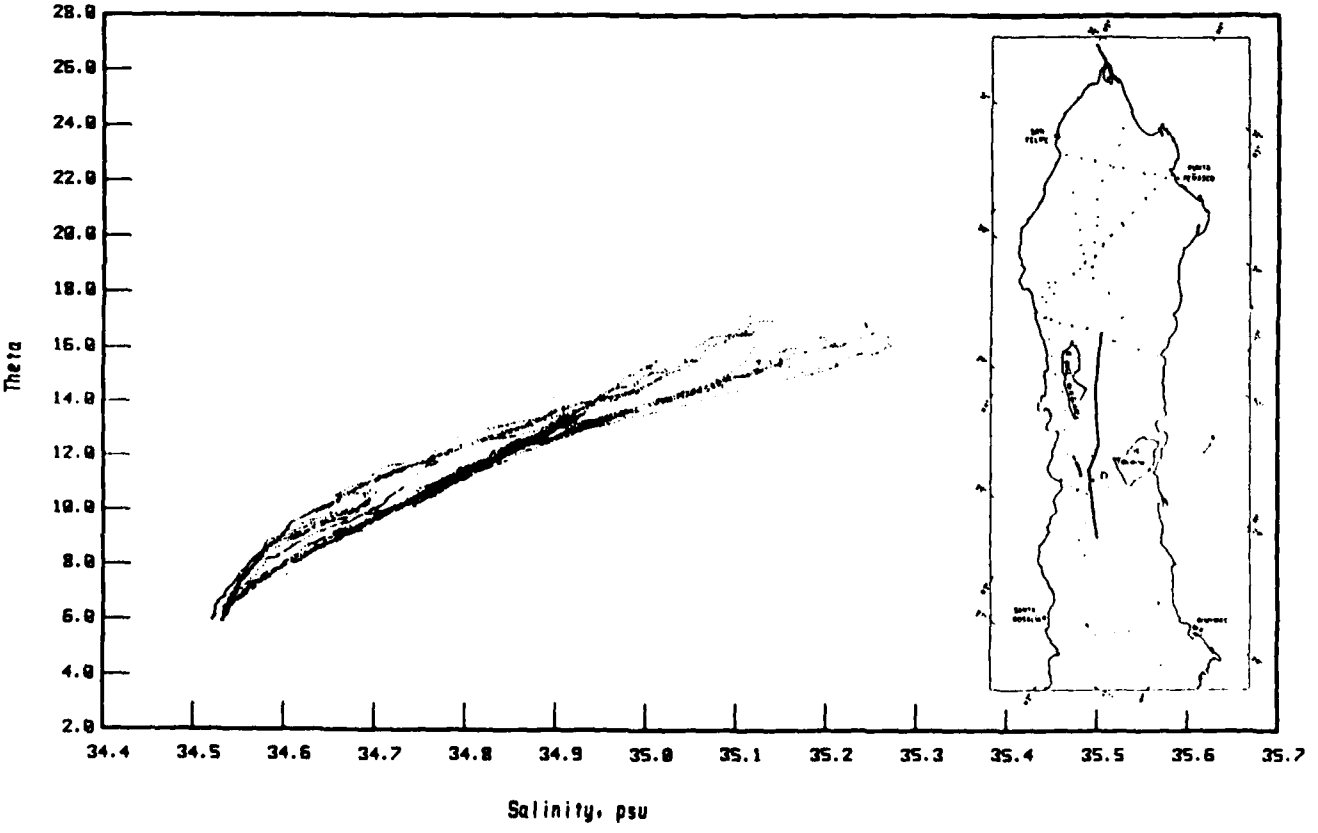
8f PC7085 to PC7124 : NG2-1 to NG2-34 : Second northern gulf survey



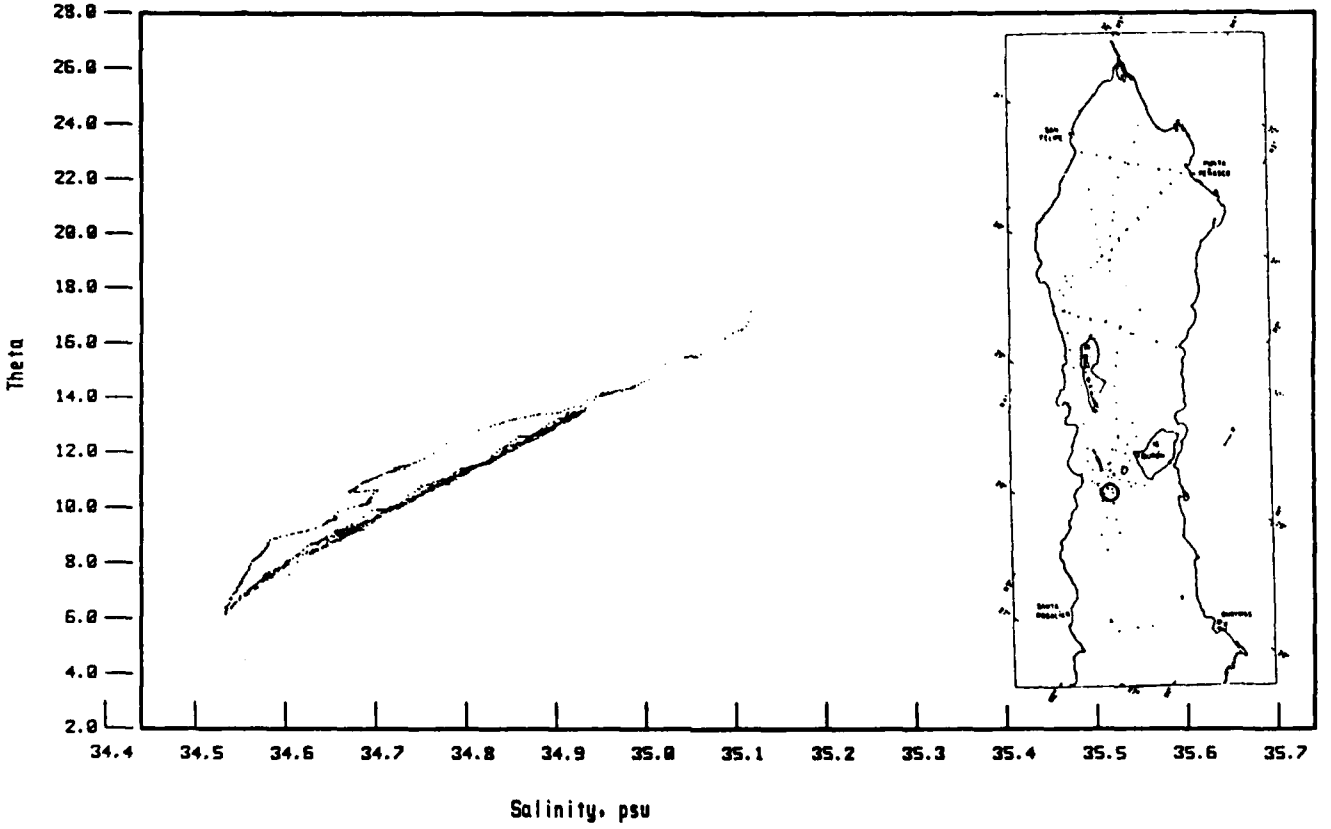
8g PC7104 to PC7111 : SF-1 to SF-8 : Special northern gulf section



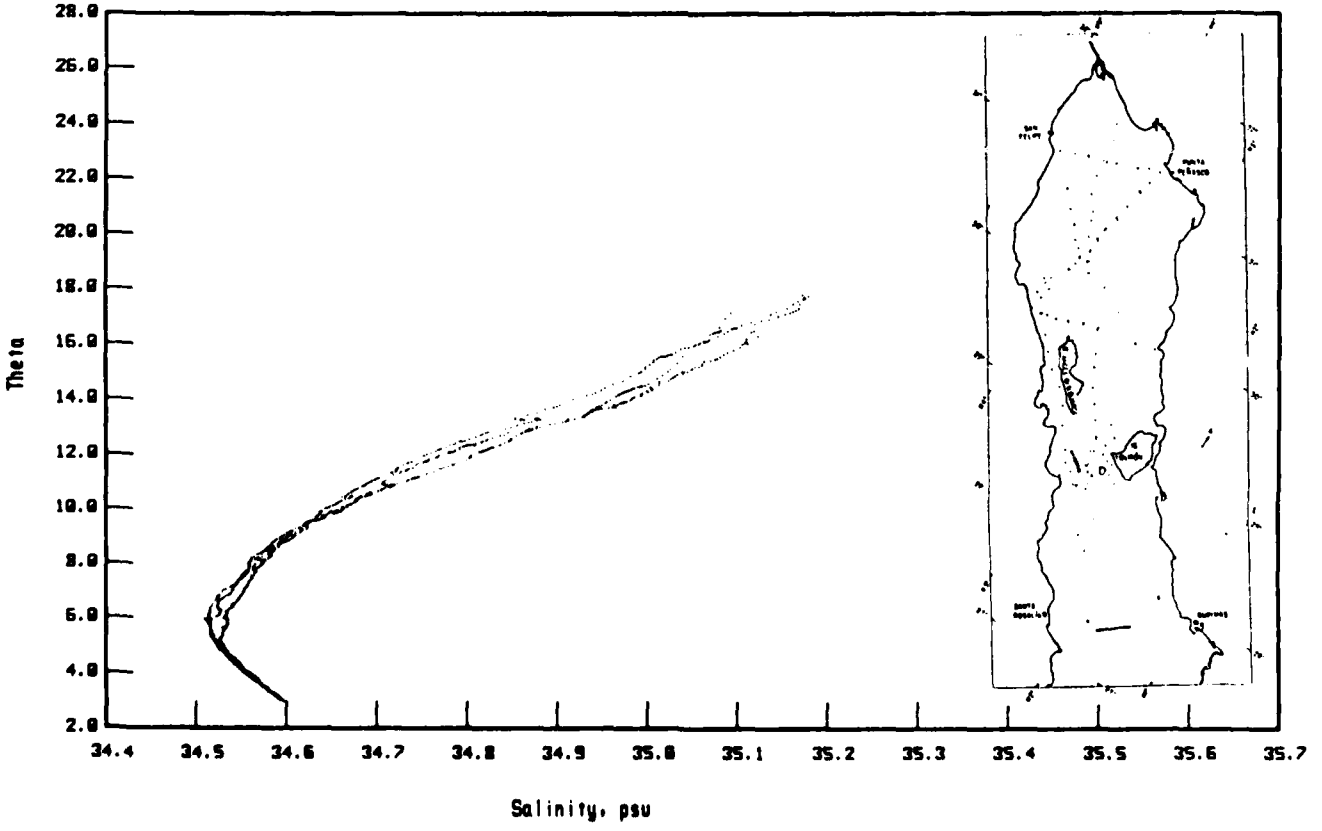
8h PC7125 to PC7146 : ES-1 to ES-15 : Eastern N-S section



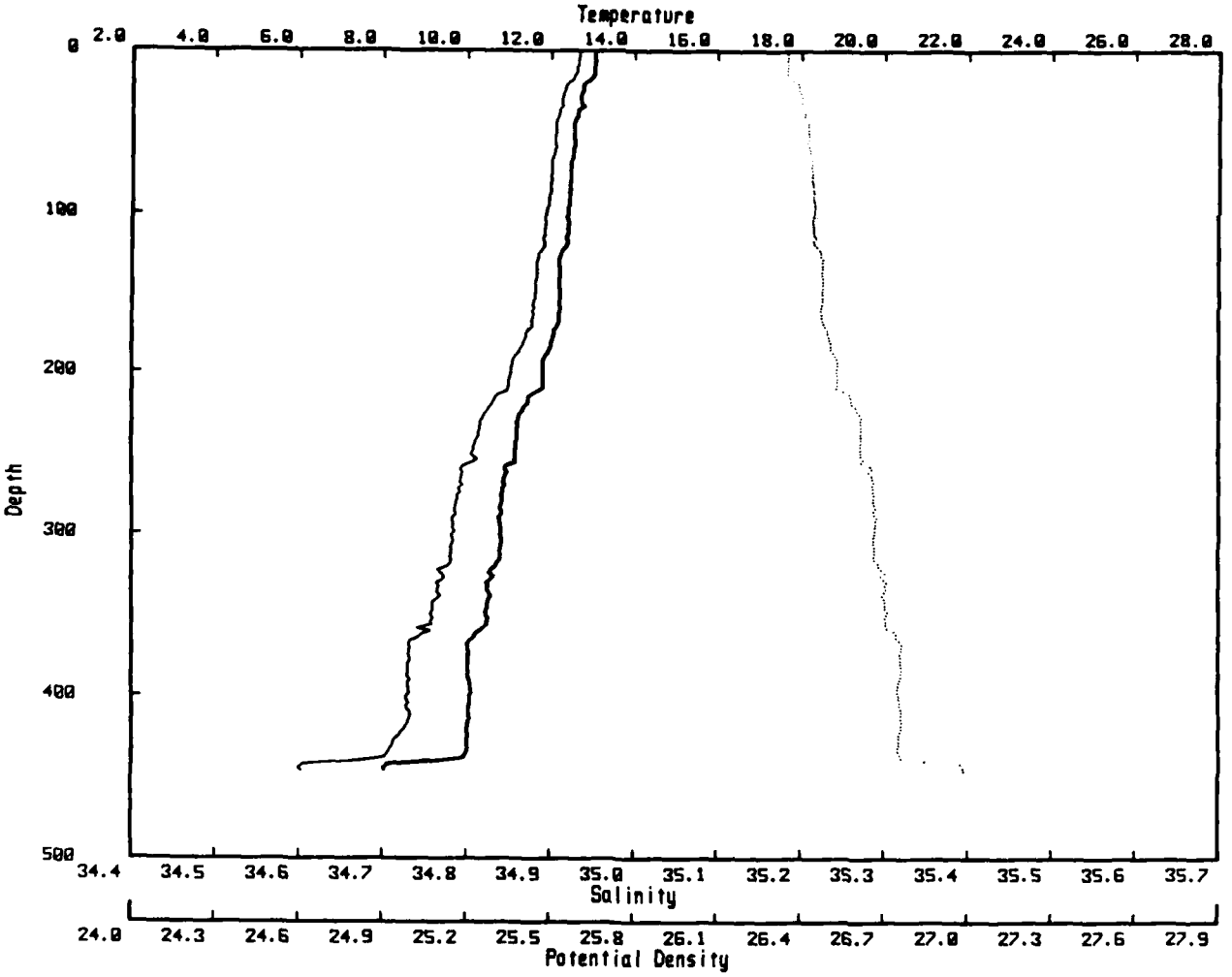
8i PC7138 to PC7143 : ESP-1 to ESP-6 : San Pedro basin



8j PC7147 to PC7149 : B-4 to B-6 : Central Guaymas-S. Rosalia line



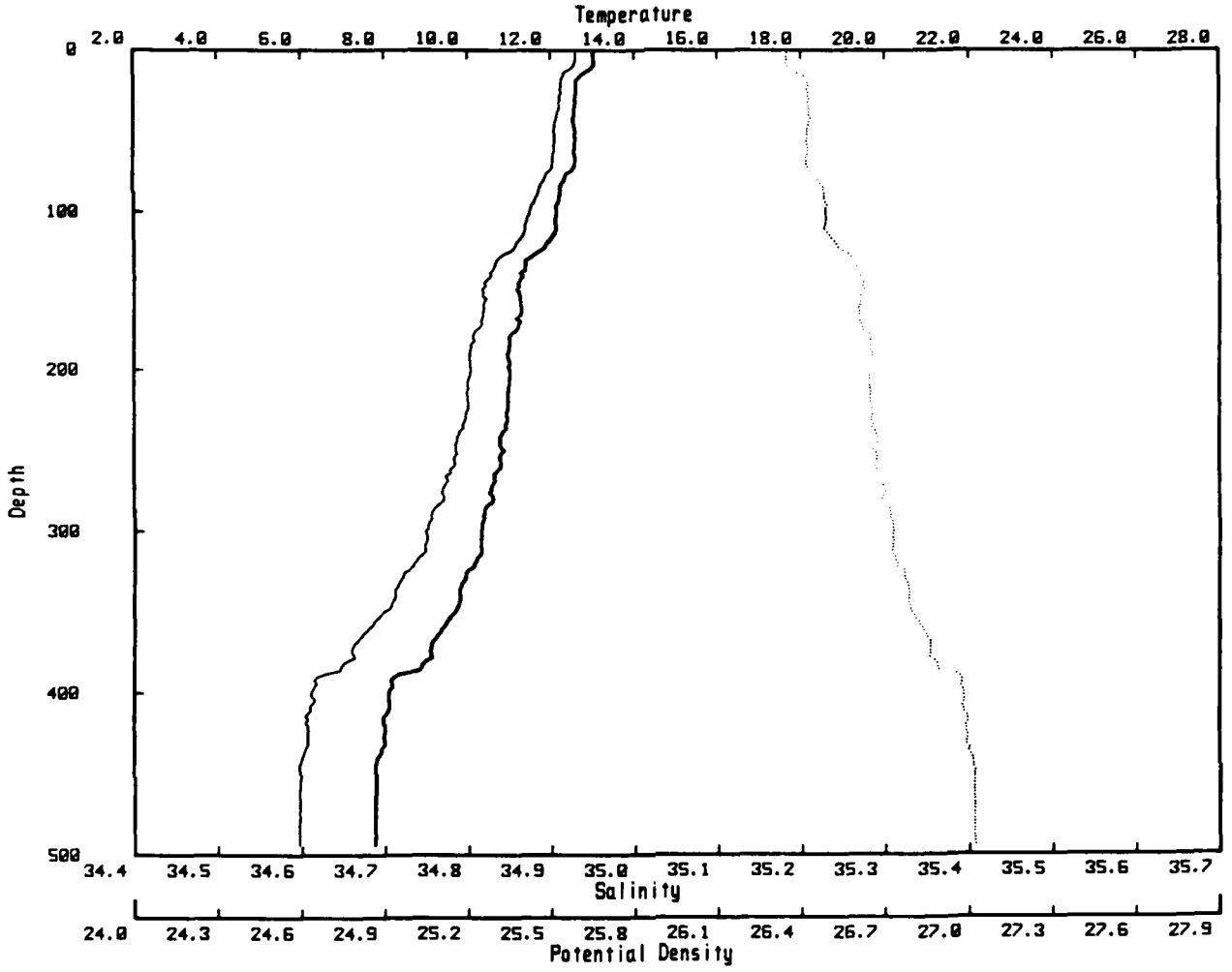
STATION PC7001 : 28 39.1 N 112 36.4 W 10/ 3/85 1012Z 444/ 451m



Day: 69.42 SST: 13.2 Tdry: 15.8 Twet: 13.5 Wspd: 12.6 CTD #: 3
CAP YOYO 1 NEAR SILL BUOY. RANGE 3.45 @ 040 S.ESTEBAN.
ANC 17 SEP 85 CH:WD,CD POS:OK

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	13.046	34.934	26.351	90.0	12.445	34.898	26.445
10.0	13.045	34.931	26.349	100.0	12.409	34.895	26.450
20.0	12.795	34.920	26.391	120.0	12.404	34.893	26.450
30.0	12.714	34.913	26.402	140.0	12.229	34.884	26.477
40.0	12.639	34.909	26.414	160.0	12.227	34.880	26.475
50.0	12.565	34.906	26.426	180.0	12.039	34.869	26.503
60.0	12.536	34.904	26.431	200.0	11.830	34.853	26.531
70.0	12.488	34.901	26.438	300.0	10.813	34.783	26.666
80.0	12.463	34.900	26.443	400.0	10.076	34.728	26.754

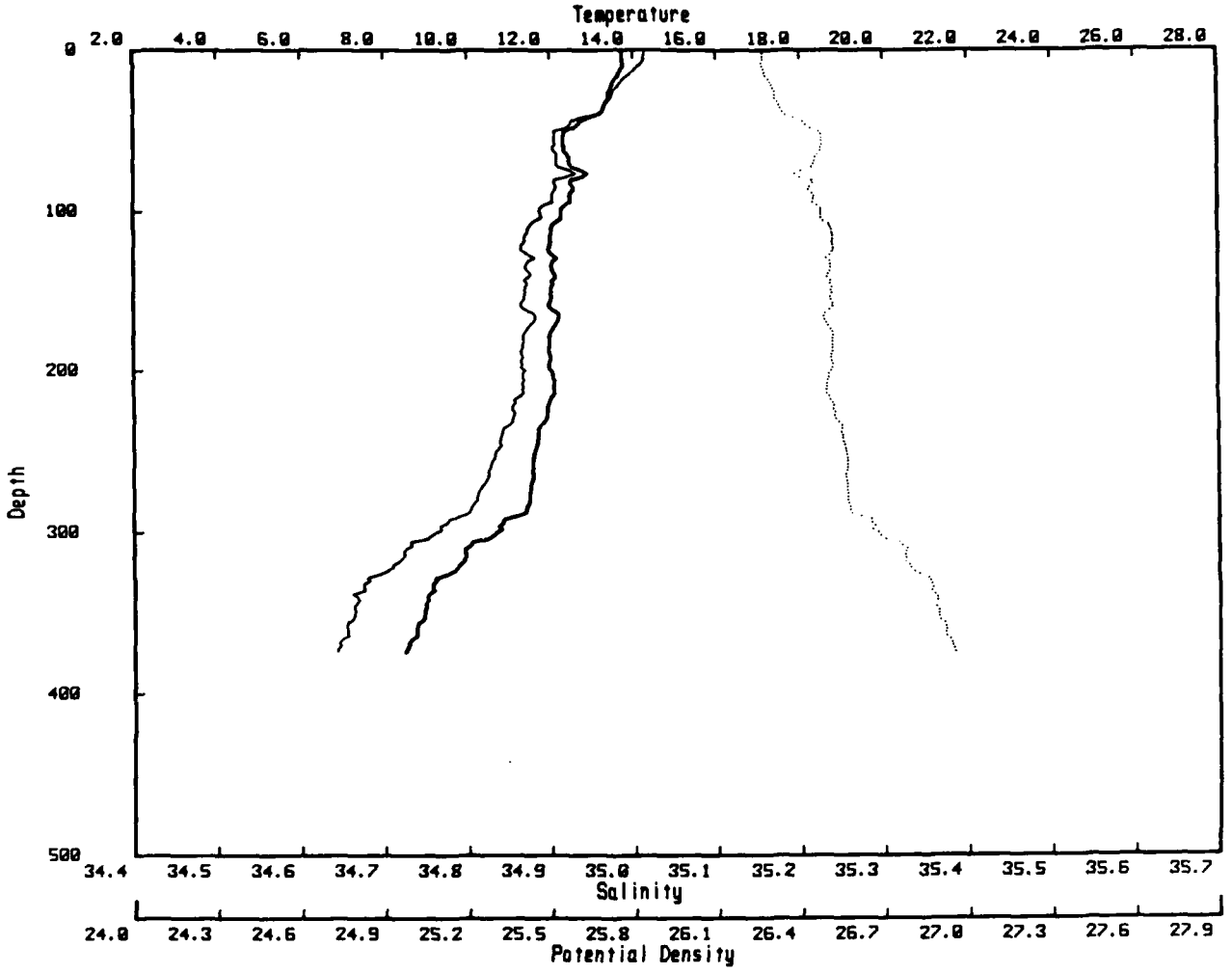
STATION PC7002 : 28 37.6 N 112 38.8 W 10/ 3/85 1047Z 493/ 498m



Day: 69.44 SST: 13.3 Tdry: 15.6 Twet: 13.4 Wspd: 3.2 CTD #: 3
CAP Y-2 NEAR SILL BUOY. DEPTH IS 460M. S.ESTEBAN 3.73 @ 038.
ANC 17 SEP 85 CH:WD,CD POS:OK

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	13.026	34.930	26.352	90.0	12.188	34.882	26.482
10.0	13.008	34.927	26.353	100.0	12.129	34.874	26.488
20.0	12.600	34.912	26.423	120.0	11.910	34.859	26.518
30.0	12.572	34.911	26.428	140.0	11.256	34.826	26.616
40.0	12.554	34.907	26.429	160.0	11.261	34.818	26.609
50.0	12.583	34.904	26.421	180.0	10.991	34.806	26.649
60.0	12.569	34.904	26.424	200.0	11.004	34.804	26.646
70.0	12.586	34.902	26.420	300.0	10.303	34.749	26.729
80.0	12.334	34.892	26.462	400.0	8.095	34.612	26.982

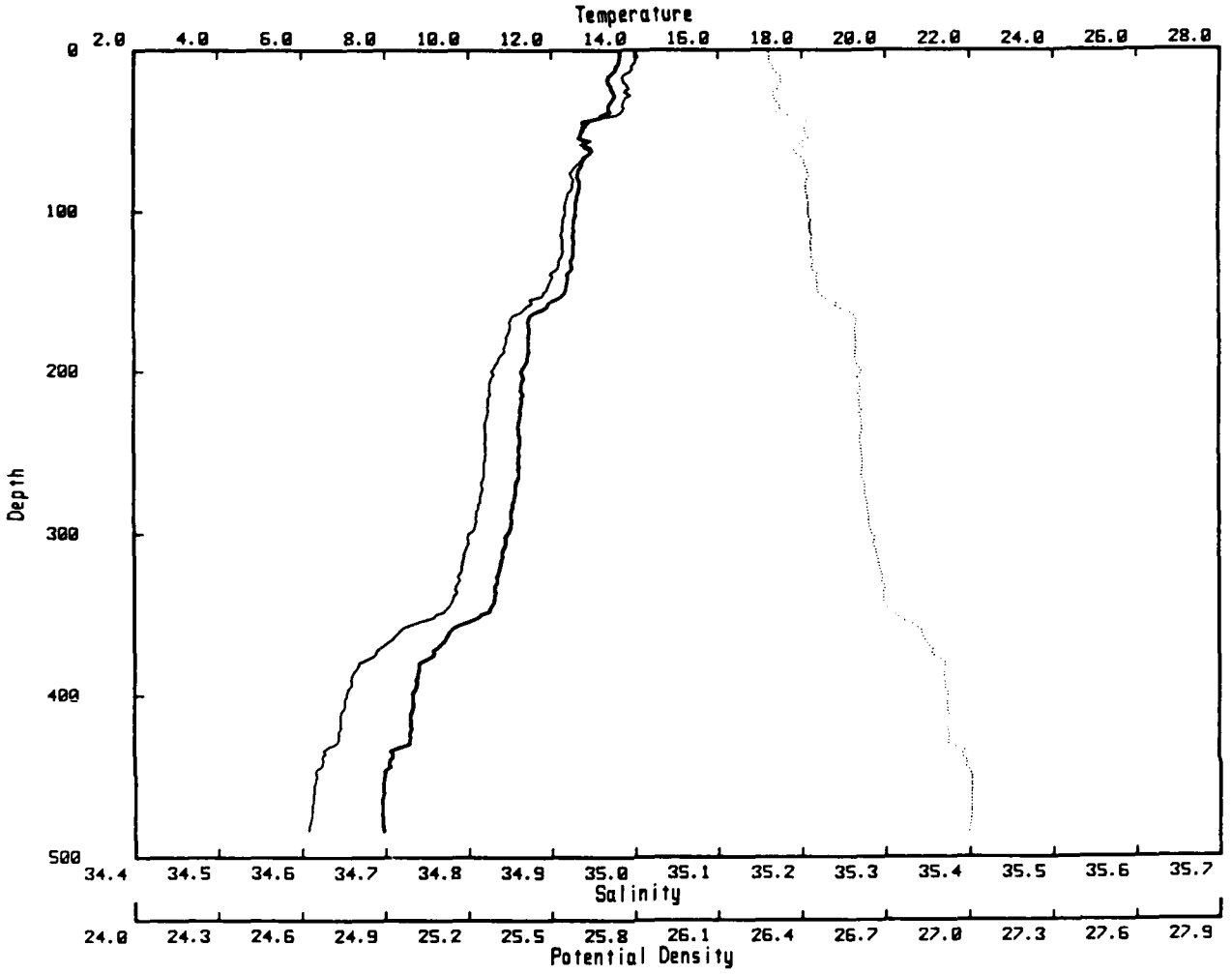
STATION PC7003 : 28 37.6 N 112 38.4 W 10/ 3/85 1144Z 372/ 377m



Day: 69.48 SST: 14.1 Tdry: 16.2 Twet: 13.9 Wspd: 12.1 CTD #: 3
CAP-3.SHIP REPOSITIONED AFTER LAST CAST.
ANC 2 OCT 85 CH:WD,CD POS:ANC RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	13.747	35.014	26.269	90.0	12.439	34.901	26.448
10.0	13.743	35.006	26.264	100.0	12.250	34.887	26.474
20.0	13.520	34.985	26.294	120.0	11.987	34.868	26.511
30.0	13.393	34.972	26.311	140.0	12.086	34.875	26.498
40.0	13.144	34.953	26.347	160.0	11.949	34.864	26.516
50.0	12.345	34.904	26.468	180.0	11.970	34.867	26.515
60.0	12.317	34.902	26.472	200.0	12.013	34.869	26.509
70.0	12.458	34.907	26.449	300.0	10.667	34.761	26.675
80.0	12.487	34.904	26.441				

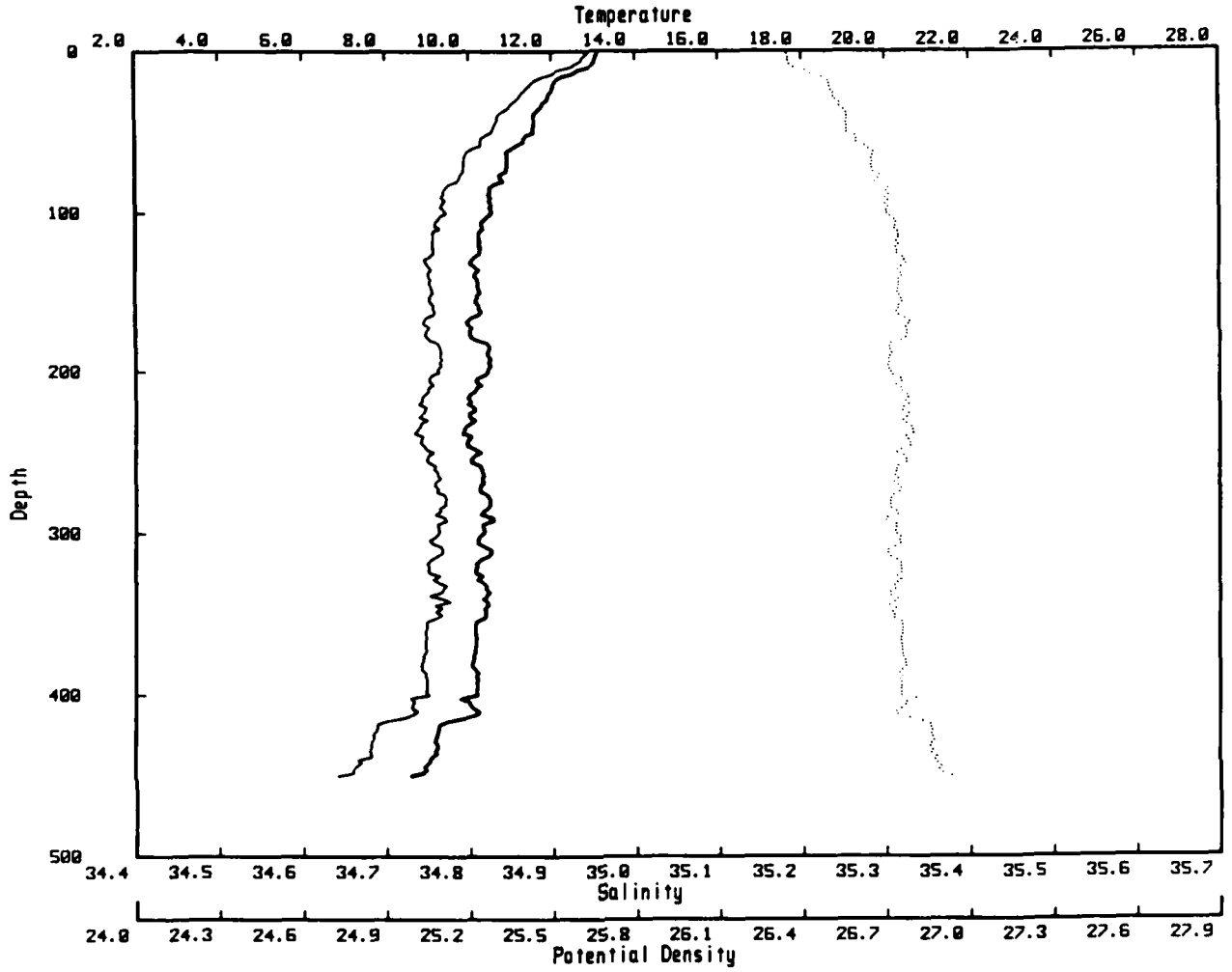
STATION PC7004 : 28 39.6 N 112 39.1 W 10/ 3/85 1205Z 484/ 489m



Day: 69.50 SST: 14.0 Tdry: 16.6 Twet: 13.7 Wspd: 13.0 CTD #: 3
CAP Y-4 NEAR SILL BUOY. SAN ESTEBAN 033 @ 3.6.
ANC 17 SEP 85 CH:WD,CD POS:OK *** uptrace ***

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	13.644	35.002	26.281	90.0	12.630	34.920	26.425
10.0	13.556	34.996	26.295	100.0	12.600	34.918	26.430
20.0	13.368	34.987	26.327	120.0	12.554	34.914	26.437
30.0	13.480	34.989	26.306	140.0	12.386	34.899	26.458
40.0	13.211	34.978	26.353	160.0	11.926	34.872	26.526
50.0	12.742	34.939	26.417	180.0	11.453	34.846	26.596
60.0	12.820	34.949	26.409	200.0	11.275	34.828	26.615
70.0	12.749	34.933	26.411	300.0	10.954	34.801	26.655
80.0	12.673	34.927	26.422	400.0	8.679	34.654	26.925

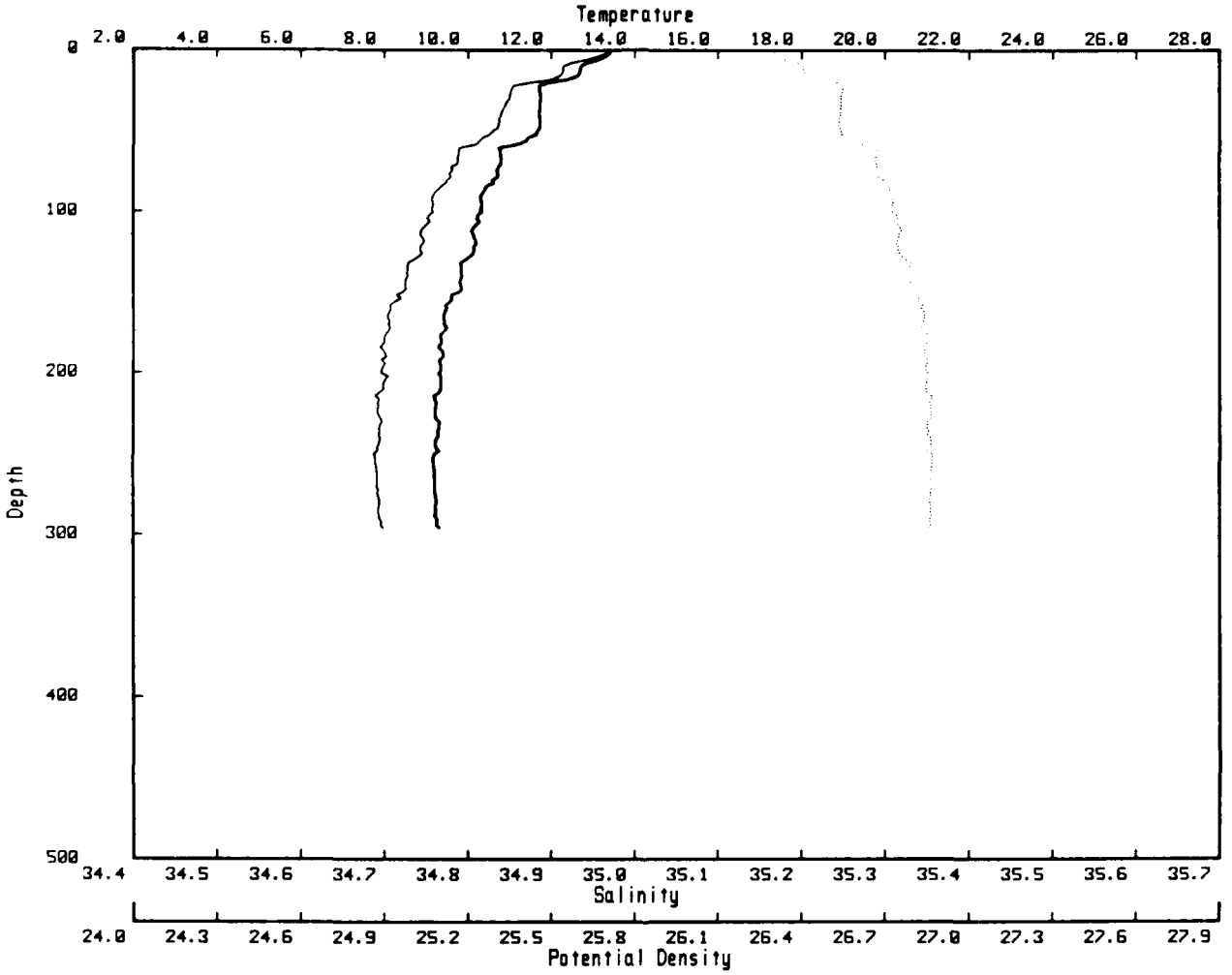
STATION PC7005 : 28 43.3 N 112 39.8 W 10/ 3/85 1302Z 449/ 454m



Day: 69.54 SST: 13.4 Tdry: 15.9 Twet: 13.8 Wspd: 10.2 CTD #: 3
CAP-5.NOMINAL RADAR 3.1 AT 045, SEE CTD LOG SHEET FOR UPDATES
ANC 17 SEP 85 CH:WD,CD POS:OK

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	13.090	34.943	26.349	90.0	10.523	34.766	26.700
10.0	12.895	34.922	26.372	100.0	10.523	34.772	26.705
20.0	12.059	34.875	26.500	120.0	10.225	34.756	26.745
30.0	11.876	34.858	26.522	140.0	10.123	34.751	26.759
40.0	11.567	34.835	26.563	160.0	10.225	34.756	26.745
50.0	11.544	34.827	26.561	180.0	10.167	34.752	26.753
60.0	11.019	34.804	26.640	200.0	10.426	34.763	26.717
70.0	10.914	34.794	26.651	300.0	10.305	34.762	26.739
80.0	10.809	34.786	26.664	400.0	10.181	34.751	26.754

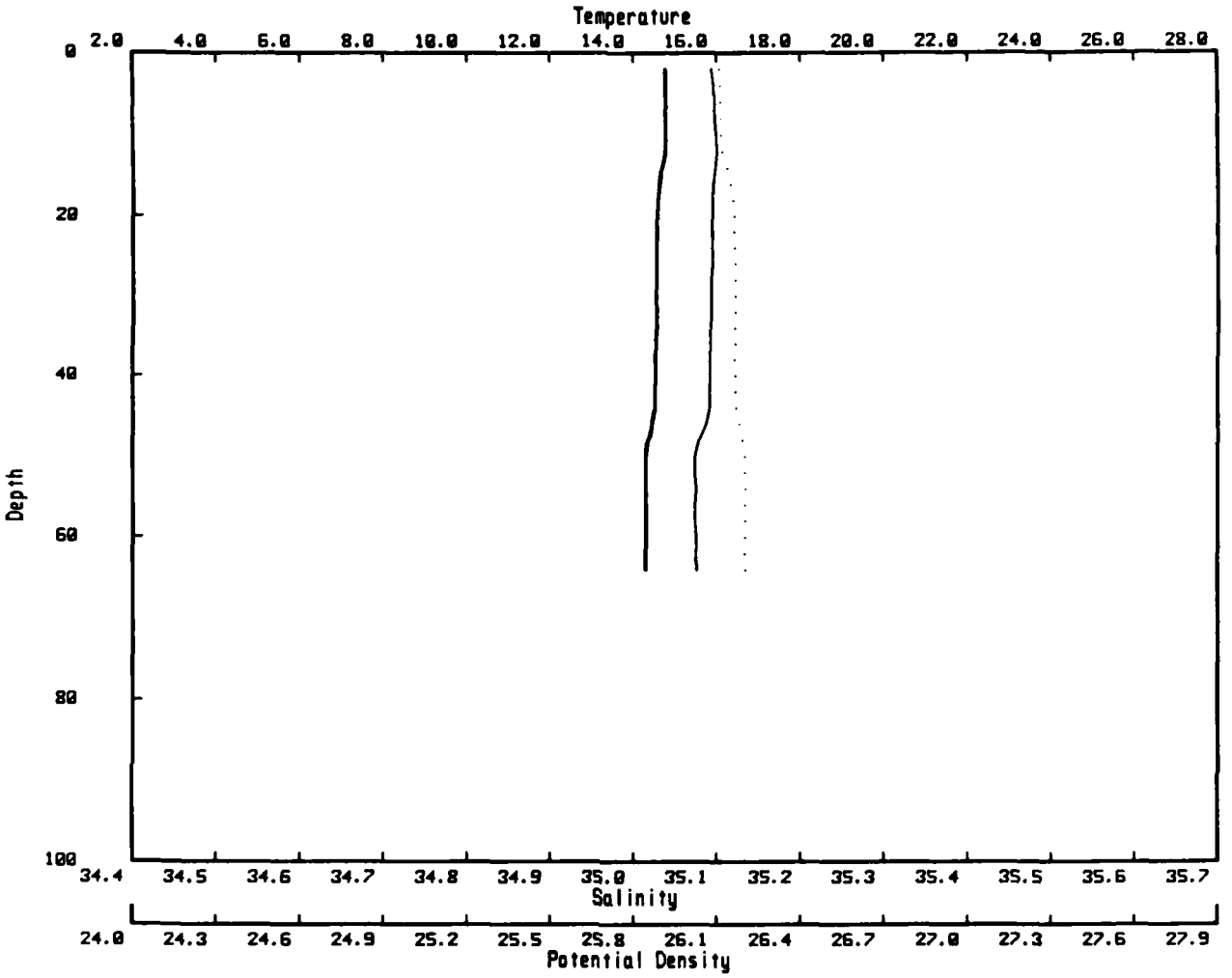
STATION PC7006 : 28 36.2 N 112 37.9 W 10/ 3/85 1402Z 295/ 300m



Day: 69.58 SST: 13.4 Tdry: 15.9 Twet: 13.9 Wspd: 14.2 CTD #: 3
CAP-6. SEE CTD NOTES FOR RADARS, COMMENTS ON SPECTACULAR SFC BOILS.
ANC 1 NOV 85 CH:WD,CD. POS:ANC RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	13.405	34.967	26.304	80.0	10.597	34.775	26.693
10.0	12.707	34.914	26.403	90.0	10.301	34.758	26.732
20.0	11.922	34.875	26.526	100.0	10.333	34.759	26.728
30.0	11.737	34.850	26.542	120.0	10.199	34.746	26.741
40.0	11.709	34.839	26.539	140.0	9.858	34.728	26.786
50.0	11.654	34.829	26.542	160.0	9.504	34.708	26.830
60.0	10.761	34.791	26.676	180.0	9.366	34.700	26.847
70.0	10.790	34.788	26.669	200.0	9.305	34.696	26.854

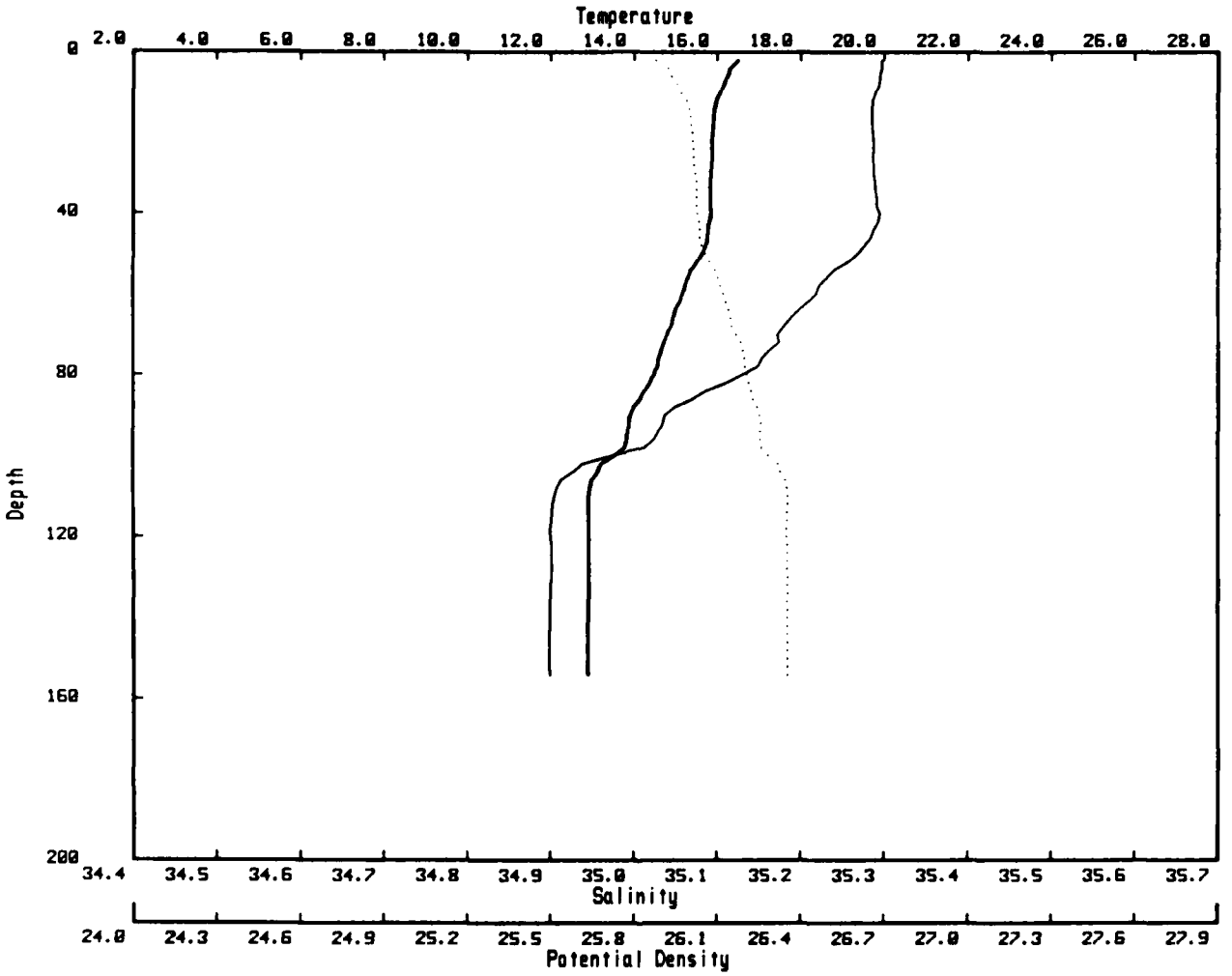
STATION PC7007 : 29 48.6 N 112 41.8 W 11/ 3/85 1031Z 64/ 69m



Day: 70.43 SST: 15.0 Tdry: 18.6 Twet: 13.4 Wspd: 4.2 CTD #: 3
NG1
ANC 17 SEP 85 CH:WD,CD POS:OK

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	14.775	35.094	26.112	40.0	14.522	35.092	26.166
10.0	14.778	35.099	26.115	50.0	14.292	35.074	26.202
20.0	14.552	35.094	26.161	60.0	14.295	35.075	26.202
30.0	14.531	35.093	26.165				

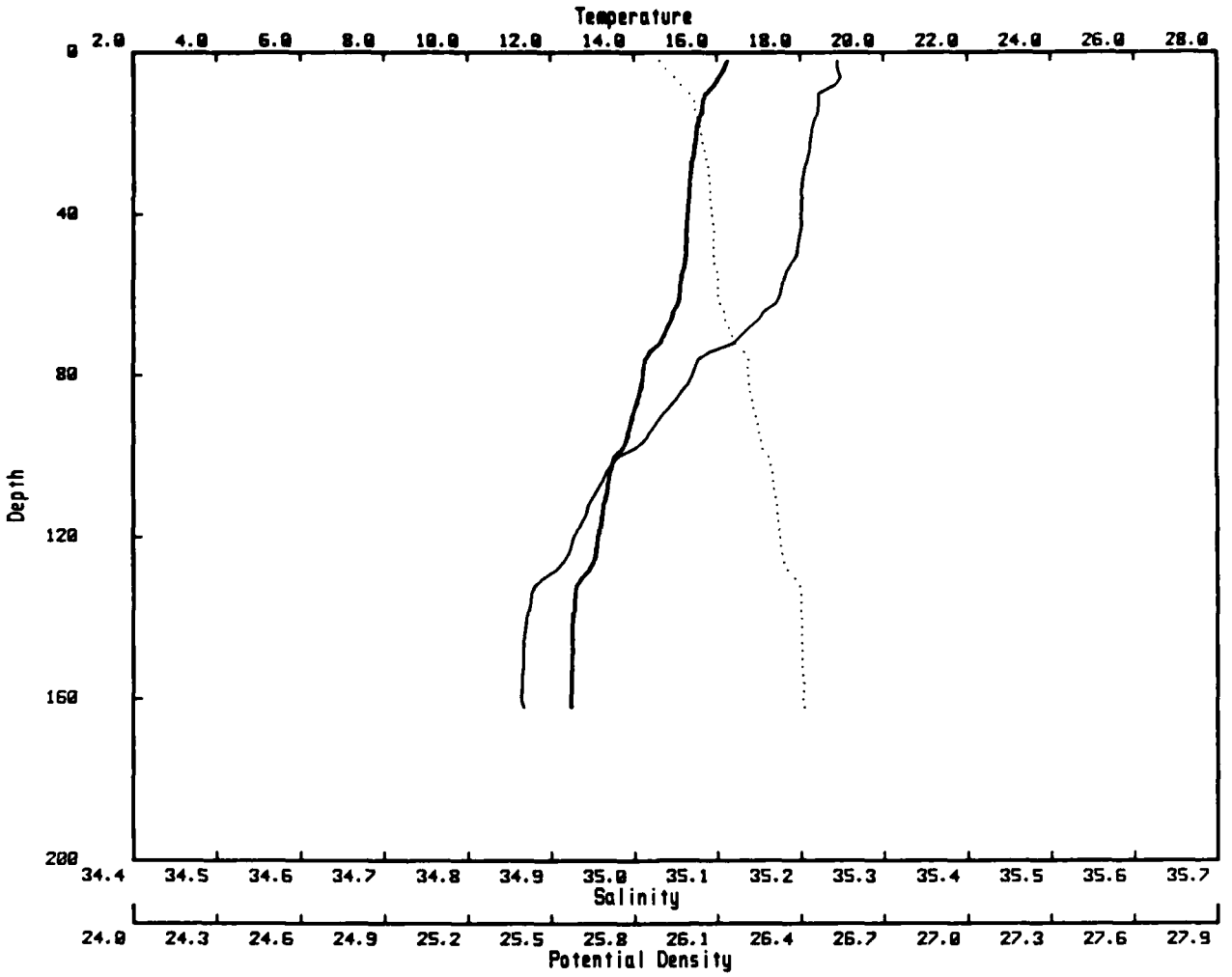
STATION PC7008 : 30 2.8 N 113 16.8 W 11/ 3/85 1345Z 153/ 158m



Day: 70.56 SST: 16.6 Tdry: 17.8 Twet: 15.6 Wspd: 3.1 CTD #: 3
NG1-2
ANC 17 SEP 85 CH:LTMIN,LGMIN,WD,CD POS:SHL/RAD

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.493	35.297	25.880	70.0	14.803	35.173	26.169
10.0	16.078	35.290	25.971	80.0	14.477	35.131	26.207
20.0	15.895	35.287	26.011	90.0	13.916	35.037	26.254
30.0	15.856	35.288	26.021	100.0	13.537	34.975	26.285
40.0	15.845	35.295	26.029	120.0	12.925	34.900	26.352
50.0	15.643	35.269	26.055	140.0	12.917	34.900	26.354
60.0	15.170	35.219	26.123				

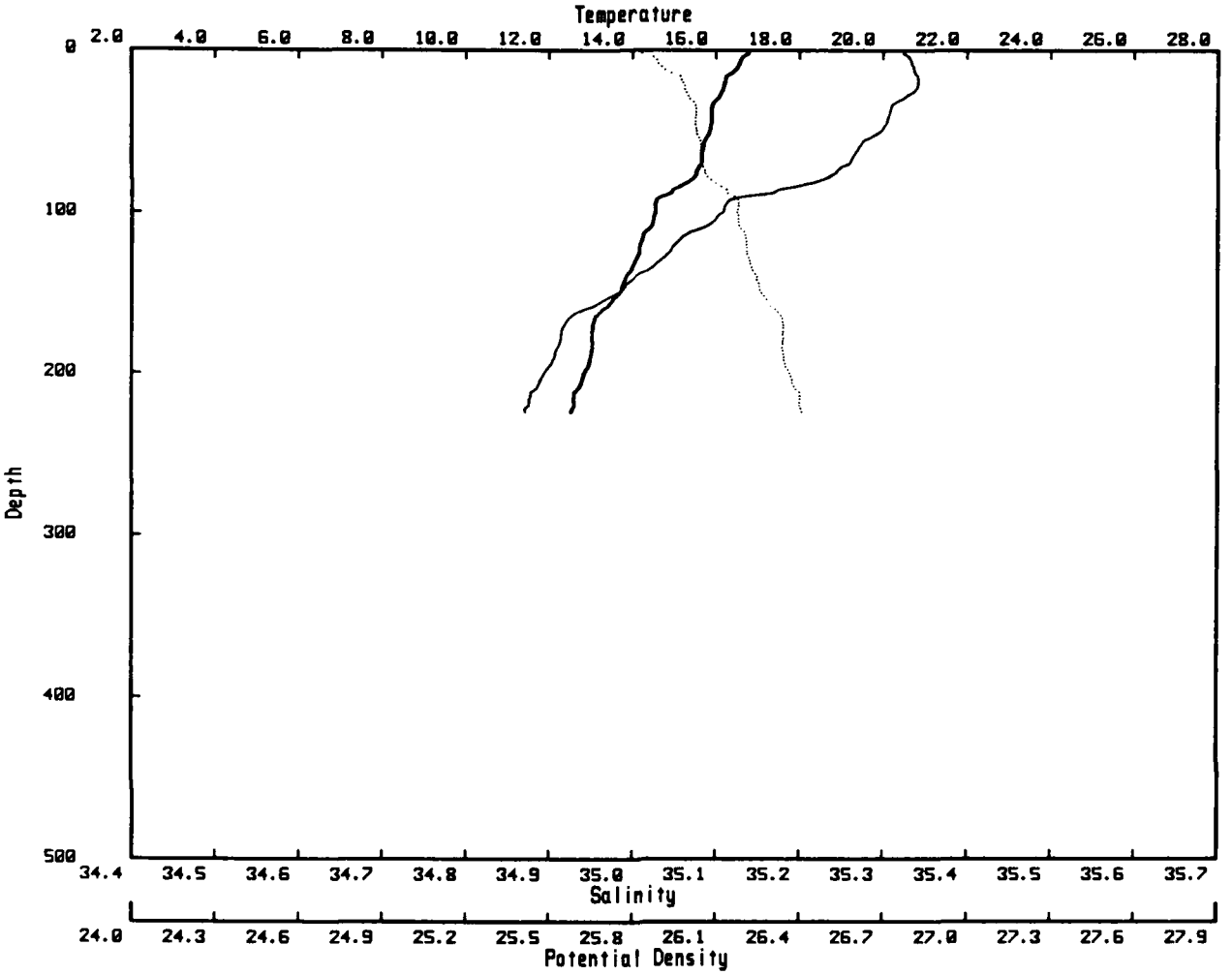
STATION PC7009 : 30 7.5 N 113 32.2 W 11/ 3/85 1538Z 160/ 165m



Day: 70.64 SST: 16.6 Tdry: 18.2 Twet: 15.0 Wspd: 9.2 CTD #: 0
STATION NG1-3
ANC 17 SEP 85 CH:WD,CD,LTMIN,LGMIN. POS:SHL/RAD

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.261	35.245	25.894	70.0	14.714	35.129	26.154
10.0	15.725	35.222	25.999	80.0	14.227	35.070	26.214
20.0	15.500	35.213	26.043	90.0	13.966	35.033	26.241
30.0	15.352	35.203	26.069	100.0	13.548	34.982	26.289
40.0	15.286	35.201	26.083	120.0	13.143	34.928	26.330
50.0	15.249	35.195	26.087	140.0	12.539	34.872	26.408
60.0	15.108	35.176	26.104	160.0	12.498	34.865	26.411

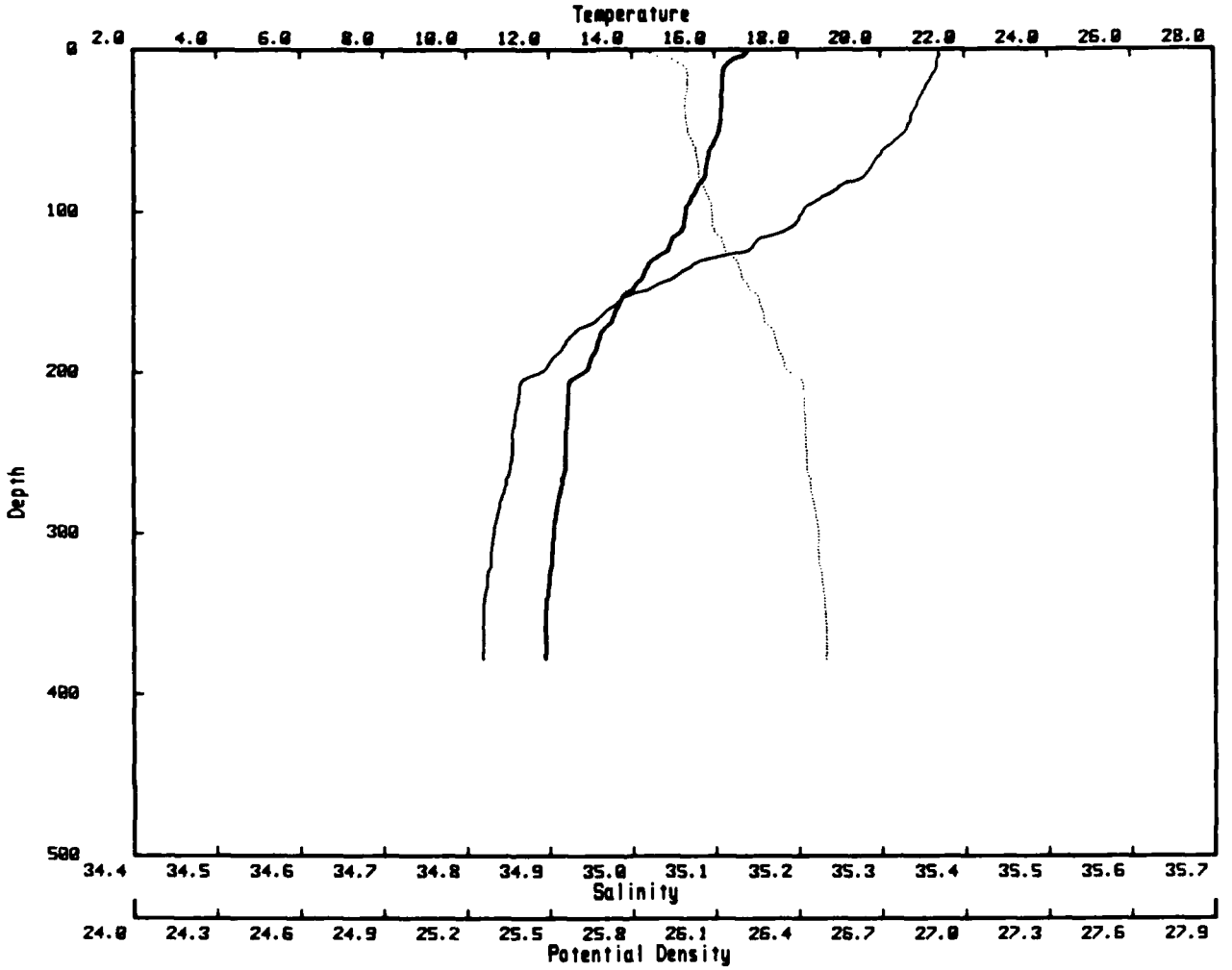
STATION PC7010 : 30 9.6 N 113 45.1 W 11/ 3/85 1714Z 223/ 228m



Day: 70.71 SST: 17.0 Tdry: 18.9 Twet: 15.4 Wspd: 6.5 CTD #: 3
STATION NG1-4
ANC 17 SEP 85 POS:OK

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.776	35.324	25.834	80.0	15.387	35.226	26.081
10.0	16.514	35.336	25.905	90.0	14.695	35.136	26.164
20.0	16.209	35.342	25.981	100.0	14.542	35.108	26.176
30.0	16.037	35.323	26.006	120.0	14.183	35.050	26.209
40.0	15.892	35.307	26.028	140.0	13.838	35.003	26.246
50.0	15.852	35.298	26.030	160.0	13.297	34.943	26.312
60.0	15.696	35.271	26.045	180.0	13.042	34.913	26.340
70.0	15.649	35.260	26.048	200.0	12.840	34.894	26.367

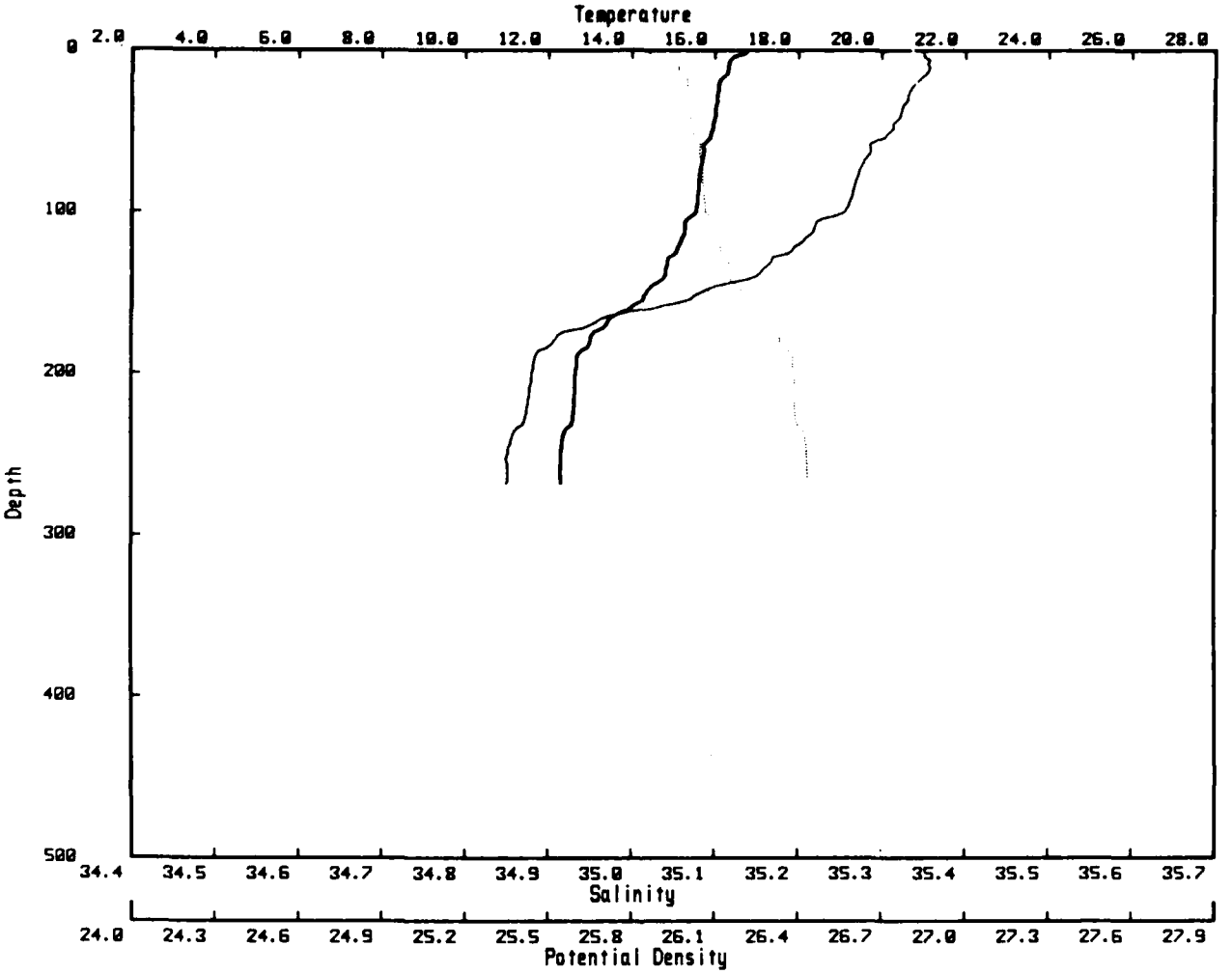
STATION PC7011 : 30 13.9 N 113 55.0 W 11/ 3/85 1836Z 378/ 383m



Day: 70.77 SST: 17.3 Tdry: 18.6 Twet: 16.1 Wspd: 8.4 CTD #: 0
NG1-5. HEADER FILE MODIFIED TO CORRECT STATION TIME, GMT, YRDAY—NAB.
ANC 17 SEP 85 CH:LTMIN,LGMIN POS:SHL/RAD

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.784	35.370	25.867	90.0	15.427	35.229	26.075
10.0	16.261	35.367	25.988	100.0	15.283	35.205	26.089
20.0	16.174	35.357	26.001	120.0	14.895	35.146	26.129
30.0	16.166	35.346	25.994	140.0	14.251	35.052	26.197
40.0	16.143	35.336	25.992	160.0	13.611	34.972	26.270
50.0	16.083	35.329	26.001	180.0	13.165	34.920	26.321
60.0	15.886	35.304	26.027	200.0	12.796	34.888	26.371
70.0	15.790	35.290	26.039	300.0	12.079	34.832	26.470
80.0	15.695	35.270	26.045				

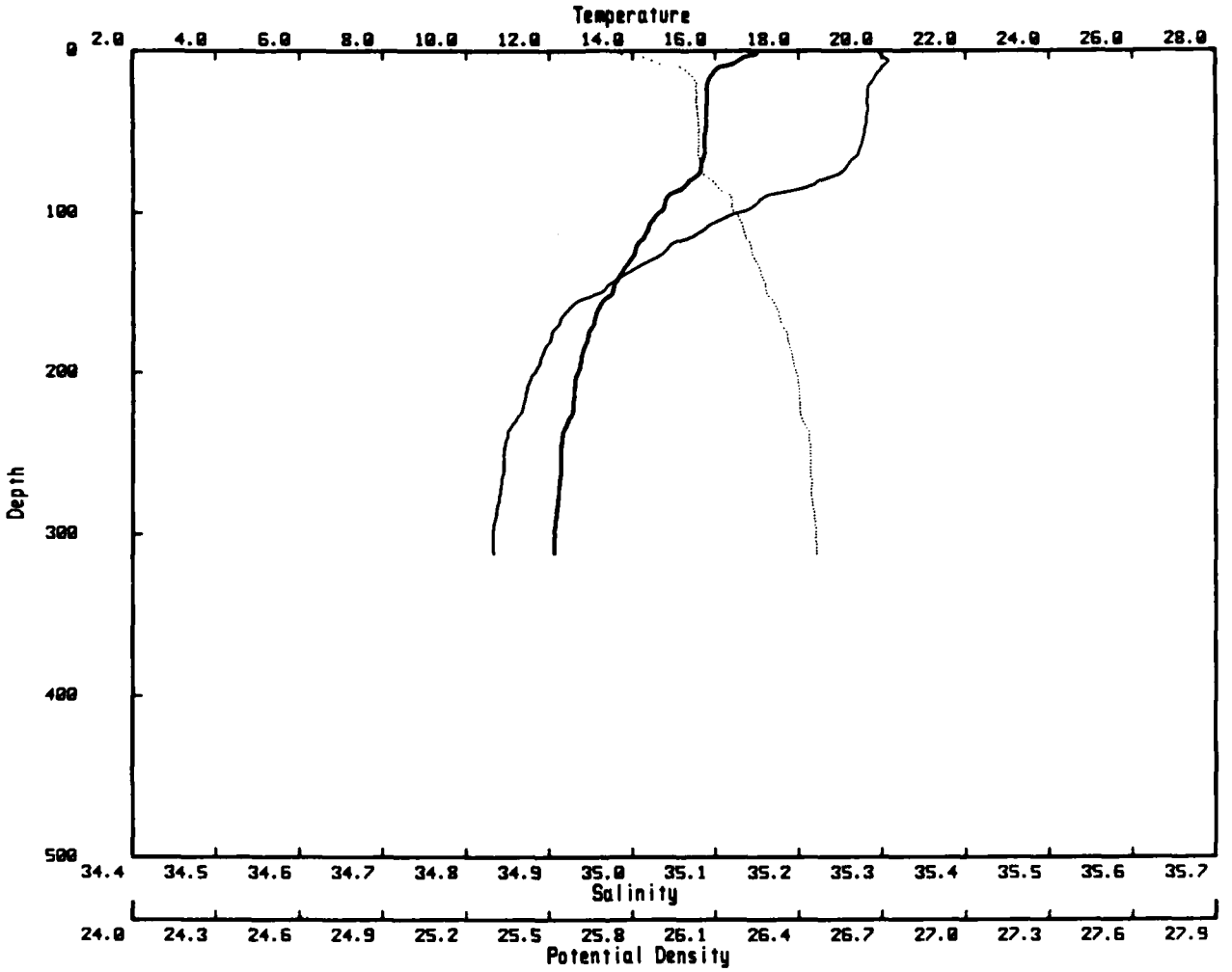
STATION PC7012 : 30 18.0 N 113 59.0 W 11/ 3/85 1947Z 267/ 272m



Day: 70.81 SST: 17.0 Tdry: 18.3 Twet: 16.1 Wspd: 6.1 CTD #: 3
NG1-6. N. GULF MOORING LEG. YEARDAY SHOULD BE FIXED. NAB.
ANC 17 SEP 85 CH:LTMIN,LGMIN. POS:SHL/RAD

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.738	35.350	25.863	80.0	15.635	35.270	26.059
10.0	16.320	35.357	25.966	90.0	15.601	35.265	26.063
20.0	16.110	35.342	26.004	100.0	15.549	35.256	26.068
30.0	16.073	35.332	26.005	120.0	15.154	35.202	26.116
40.0	16.022	35.323	26.010	140.0	14.802	35.150	26.153
50.0	15.948	35.312	26.019	160.0	13.958	35.025	26.238
60.0	15.743	35.287	26.047	180.0	13.025	34.907	26.339
70.0	15.689	35.278	26.053	200.0	12.672	34.881	26.390

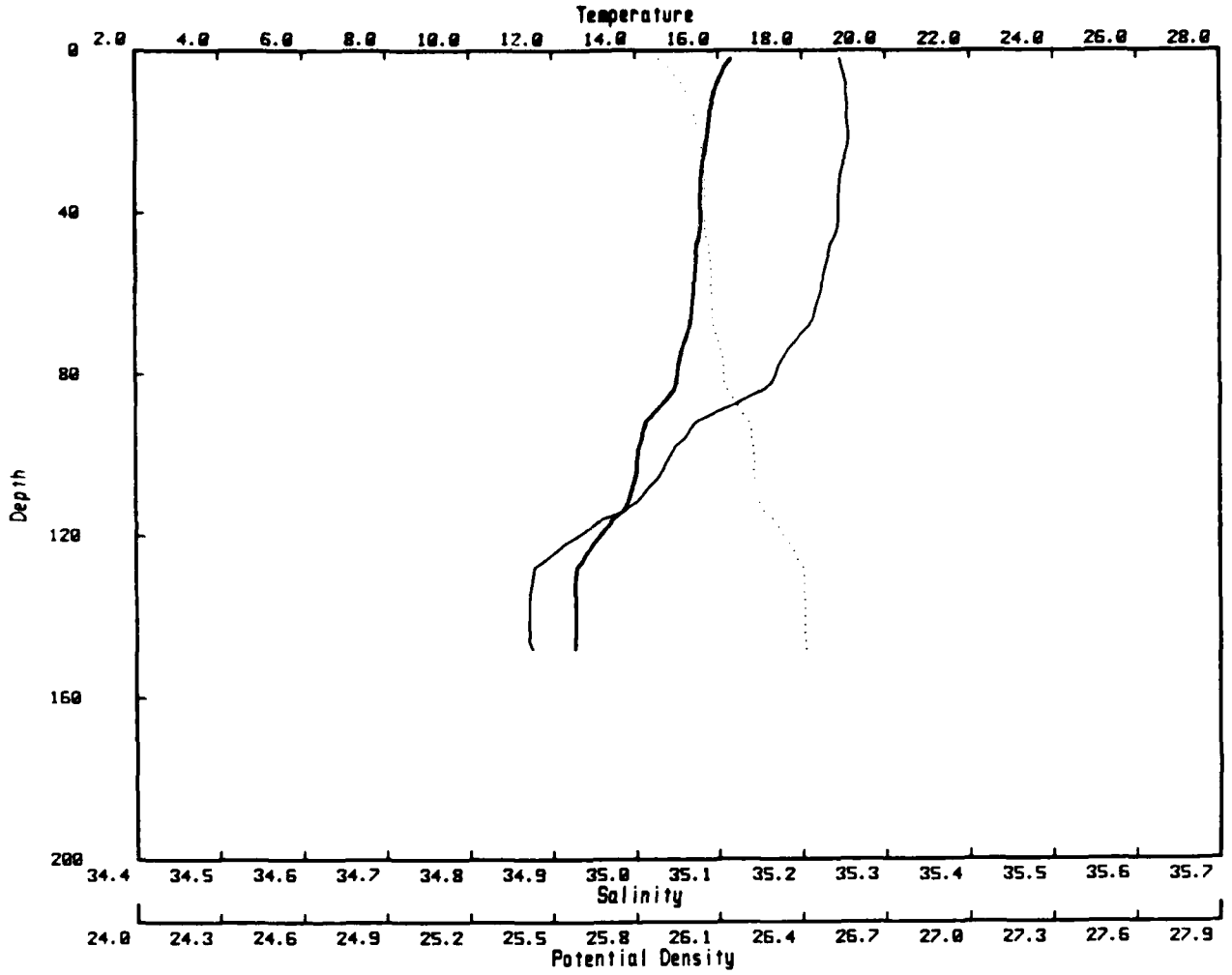
STATION PC7013 : 30 21.4 N 114 3.0 W 11/ 3/85 2055Z 311/ 316m



Day: 70.86 SST: 17.2 Tdry: 18.6 Twet: 15.8 Wspd: 1.5 CTD #: 0
NG1-7.
ANC 17 SEP 85 CH:LTMIN,LGD,LGMIN,WD,CD POS:SHL/RAD

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.989	35.297	25.763	90.0	14.815	35.157	26.154
10.0	16.100	35.301	25.974	100.0	14.594	35.122	26.176
20.0	15.805	35.287	26.031	120.0	14.086	35.045	26.226
30.0	15.792	35.282	26.031	140.0	13.661	34.985	26.269
40.0	15.771	35.281	26.035	160.0	13.174	34.923	26.321
50.0	15.746	35.278	26.039	180.0	12.894	34.900	26.360
60.0	15.738	35.273	26.037	200.0	12.669	34.882	26.391
70.0	15.647	35.258	26.047	300.0	12.120	34.832	26.462
80.0	15.342	35.223	26.089				

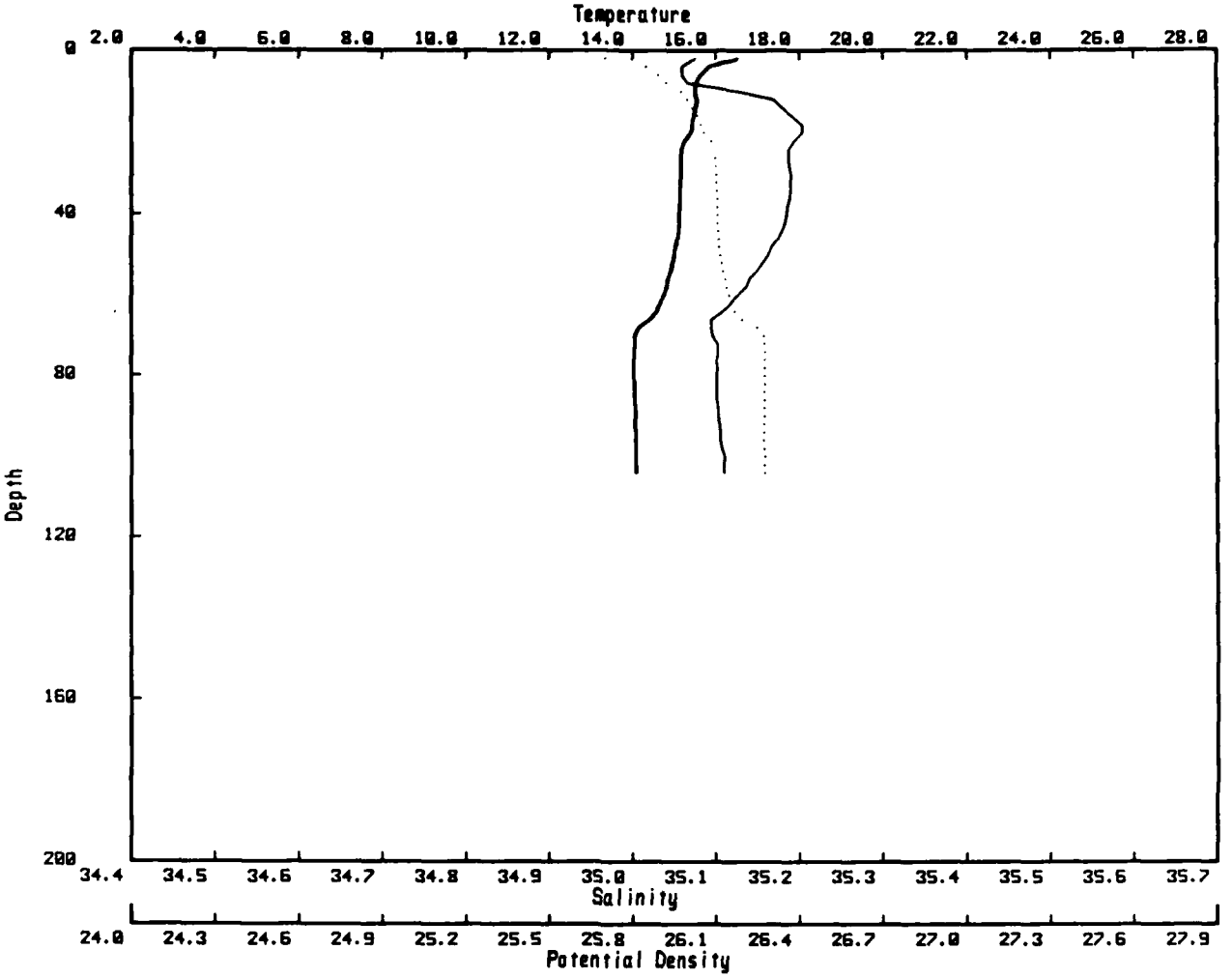
STATION PC7014 : 30 27.6 N 114 8.5 W 11/ 3/85 2224Z 148/ 153m



Day: 70.93 SST: 16.9 Tdry: 18.9 Twet: 15.8 Wspd: 1.1 CTD #: 0
NG1-8
ANC 17 SEP 85 CH:WD,CD,LTMIN,LGMIN. POS:SHL/RAD

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.298	35.246	25.886	70.0	15.247	35.199	26.091
10.0	15.903	35.253	25.983	80.0	15.013	35.169	26.120
20.0	15.736	35.255	26.022	90.0	14.431	35.093	26.188
30.0	15.596	35.247	26.048	100.0	14.067	35.043	26.227
40.0	15.573	35.244	26.052	120.0	13.150	34.932	26.332
50.0	15.463	35.232	26.067	140.0	12.540	34.872	26.407
60.0	15.399	35.223	26.075				

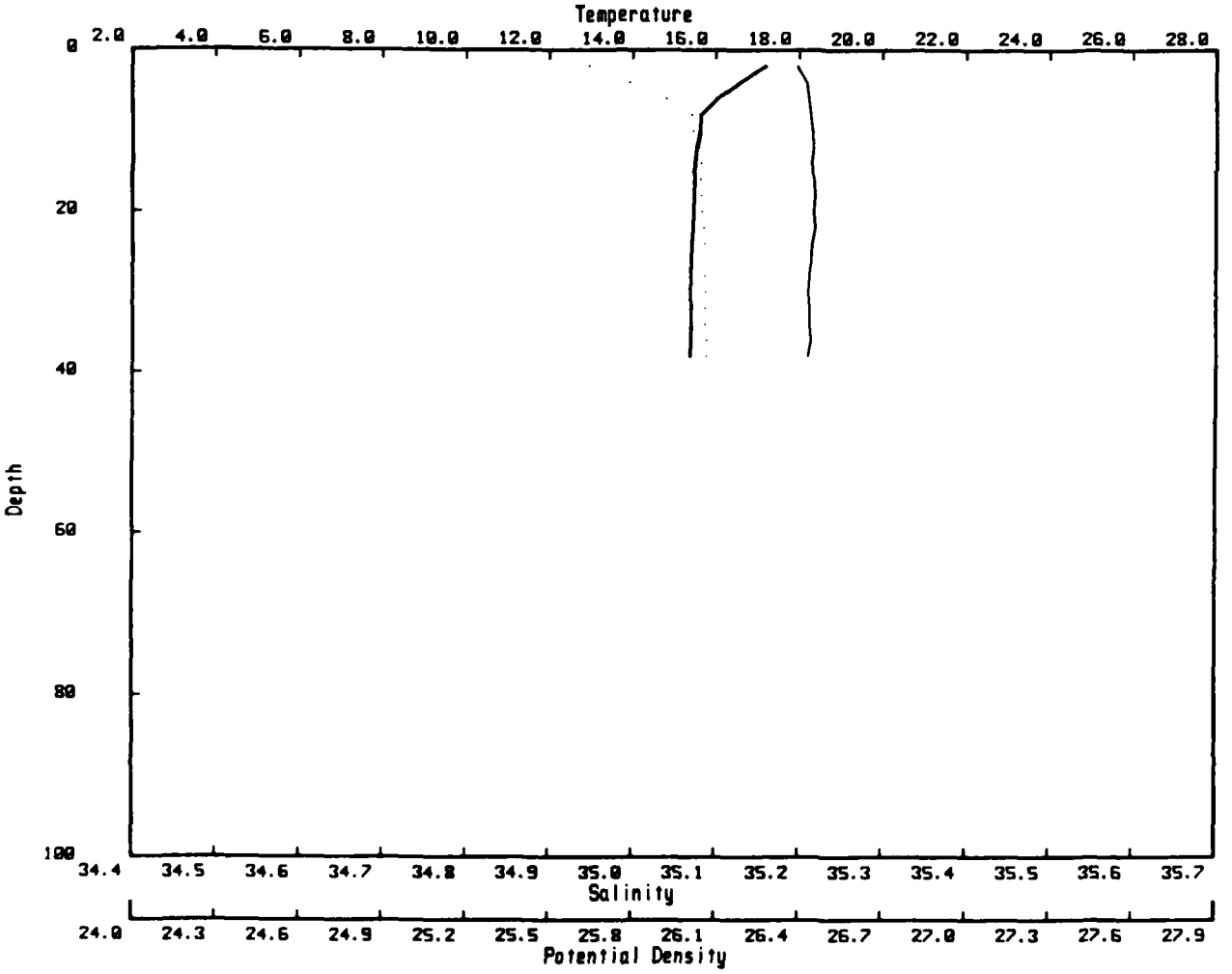
STATION PC7015 : 30 33.7 N 114 15.5 W 11/ 3/85 14Z 103/ 108m



Day: 71.01 SST: 16.6 Tdry: 18.1 Twet: 15.7 Wspd: 6.4 CTD #: 3
NG1-9.
ANC 17 SEP 85 CH:WD,CD,LTMIN,LGMIN. POS:SHL/?

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.520	35.075	25.703	60.0	14.737	35.126	26.147
10.0	15.506	35.127	25.976	70.0	14.044	35.096	26.272
20.0	15.404	35.204	26.058	80.0	14.039	35.101	26.277
30.0	15.162	35.190	26.102	90.0	14.061	35.103	26.275
40.0	15.124	35.185	26.106	100.0	14.080	35.111	26.277
50.0	15.003	35.163	26.117				

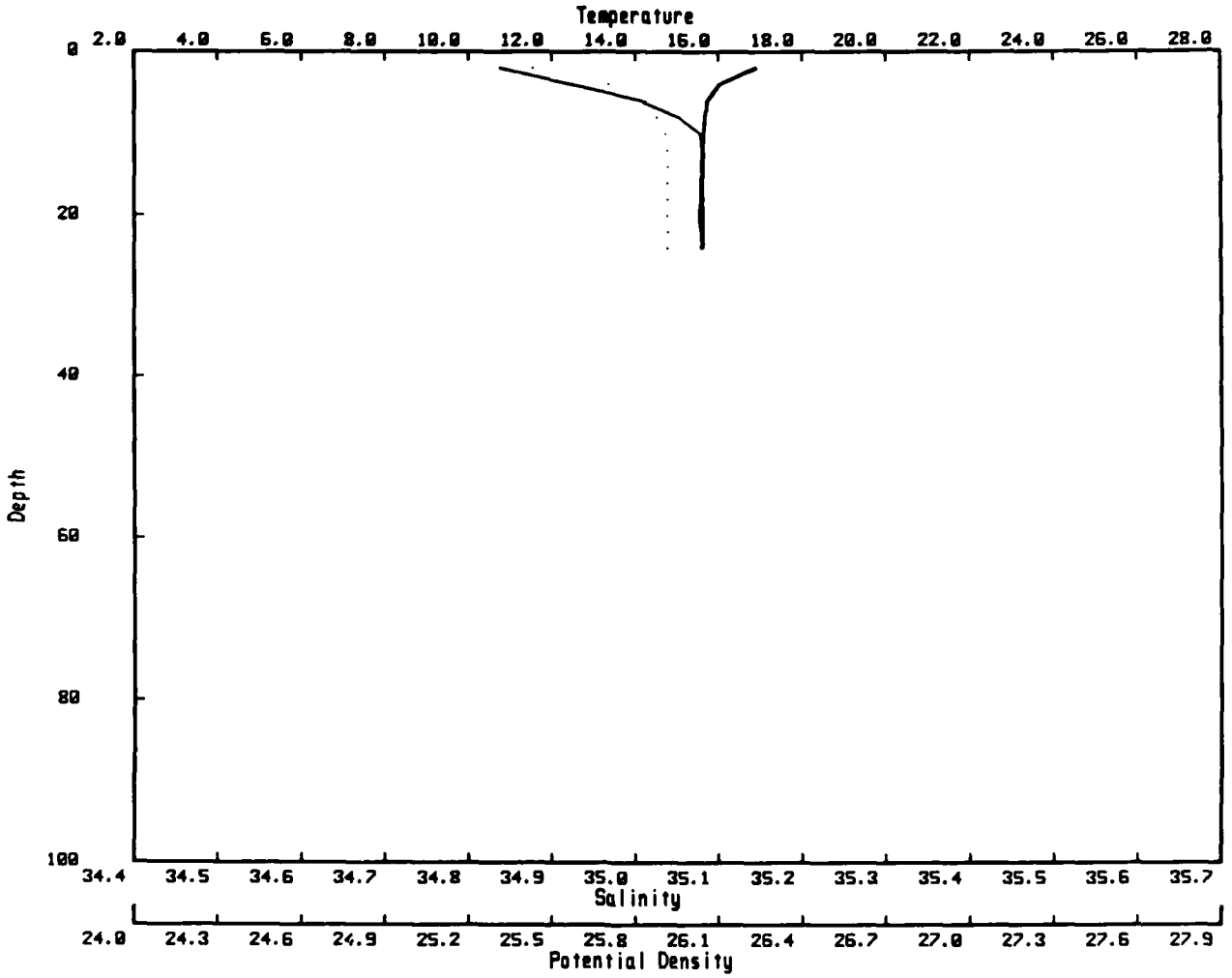
STATION PC7016 : 30 42.3 N 114 24.2 W 11/ 3/85 159Z 37/ 42m



Day: 71.07 SST: 17.5 Tdry: 18.3 Twet: 16.6 Wspd: 1.8 CTD #: 3
NG1-10.
ANC 17 SEP 85 CH:WD,CD,LTMIN,LGMIN. POS:SHL/?

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	17.177	35.198	25.642	20.0	15.474	35.218	26.053
10.0	15.625	35.216	26.017	30.0	15.406	35.212	26.064

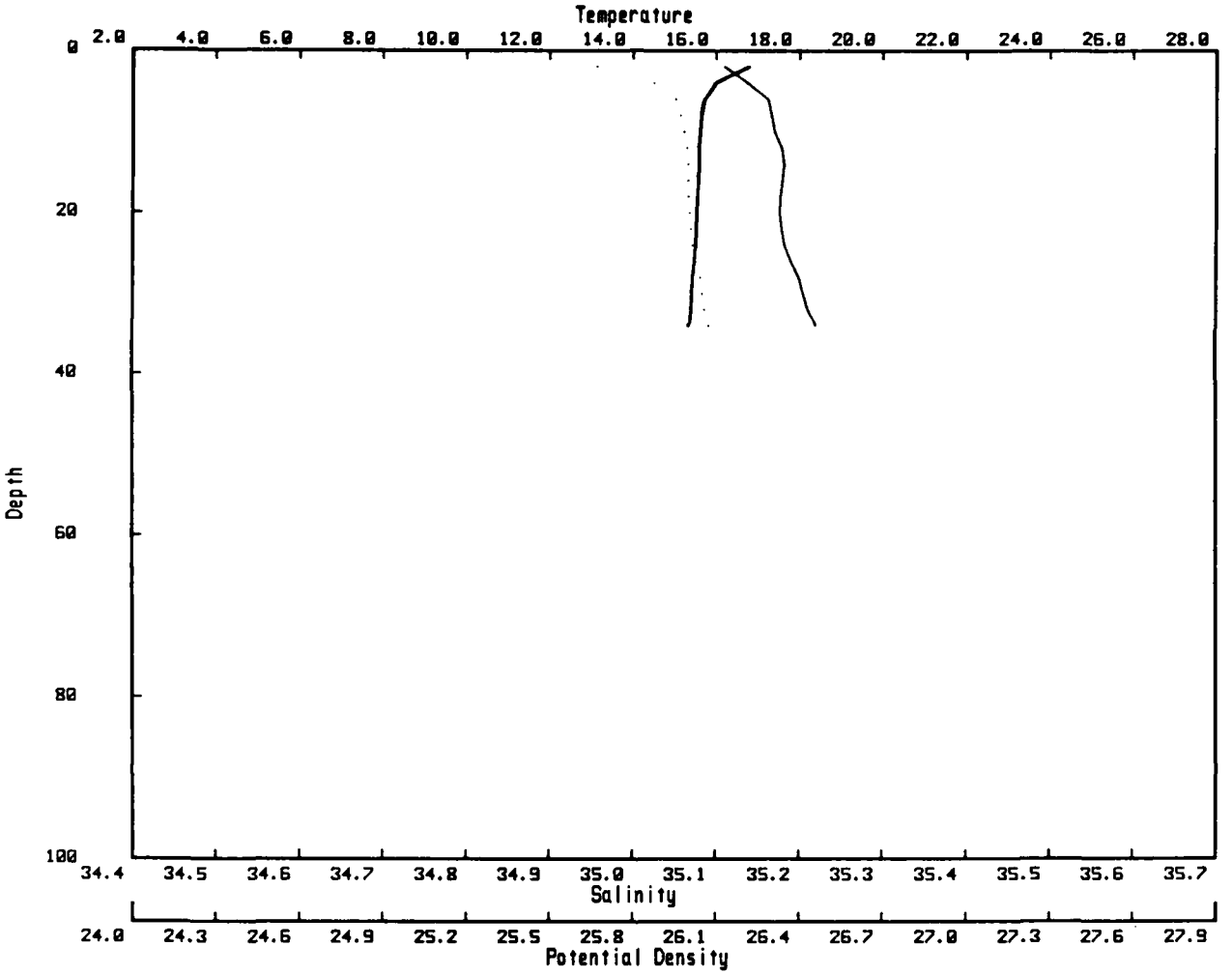
STATION PC7017 : 30 57.3 N 114 39.9 W 11/ 3/85 405Z 24/ 29m



Day: 71.17 SST: 17.0 Tdry: 19.2 Twet: 16.2 Wspd: 5.2 CTD #: 0
NG1-11.DEPTH MUCH LESS THAN CHART WOULD SUGGEST.
ANC 17 SEP 85 CH:T,CD,WD,LTMIN,LGMIN. POS:SHL/RAD

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.898	34.838	25.433	20.0	15.613	35.076	25.913
10.0	15.637	35.078	25.909				

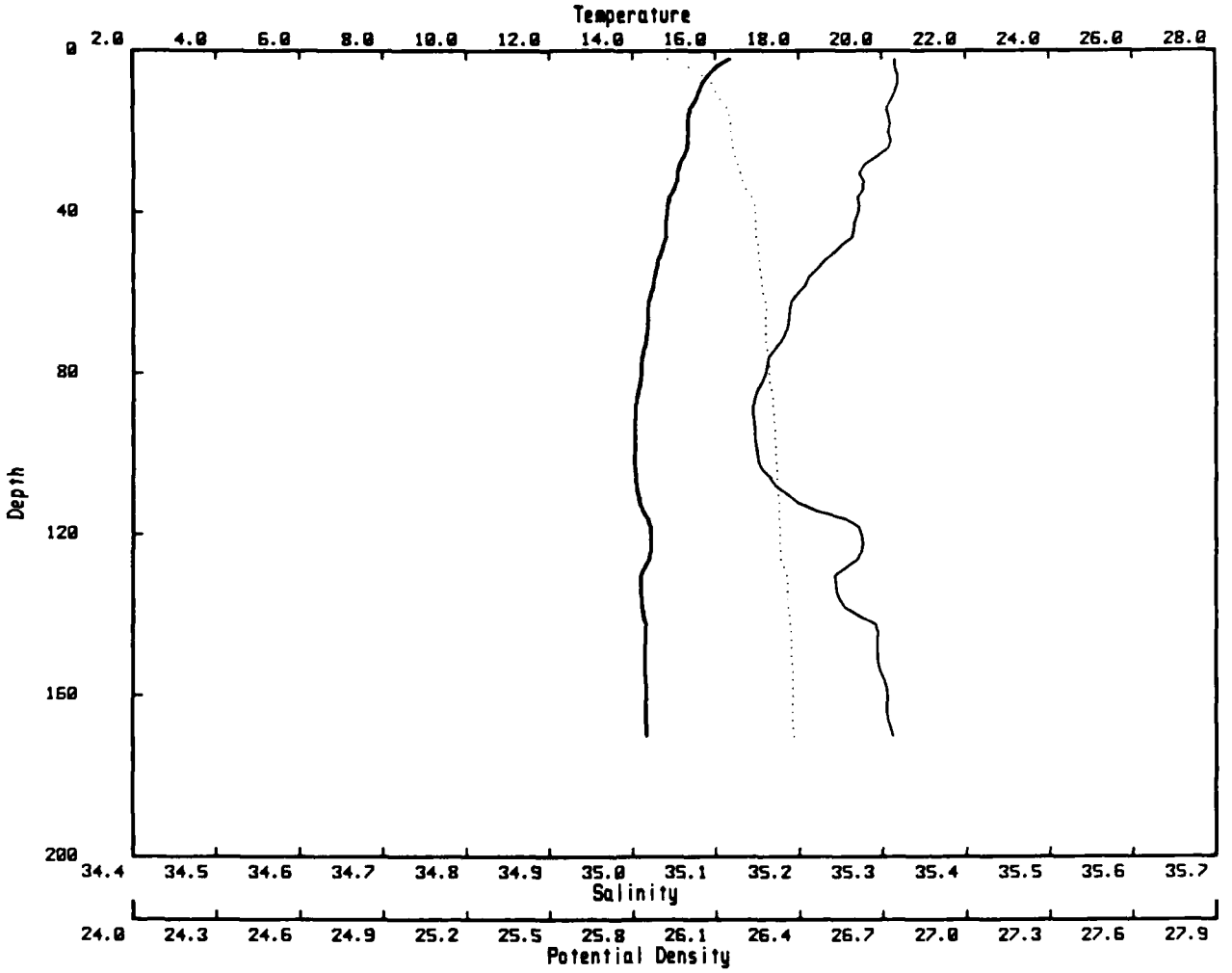
STATION PC7018 : 31 3.0 N 114 23.0 W 11/ 3/85 611Z 33/ 38m



Day: 71.25 SST: 16.8 Tdry: 17.1 Twet: 15.5 Wspd: 2.4 CTD #: 3
NG1-12.SATNAV SCREWY. REDID POS32 02.5,114 22.5.WILL ASK BRIDGE IF THERE.
ANC 17 SEP 85 CH:WD,CD,LTD,LTMIN,LGMIN. POS:SHL/RAD

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.775	35.110	25.670	20.0	15.544	35.177	26.006
10.0	15.619	35.171	25.984	30.0	15.438	35.205	26.052

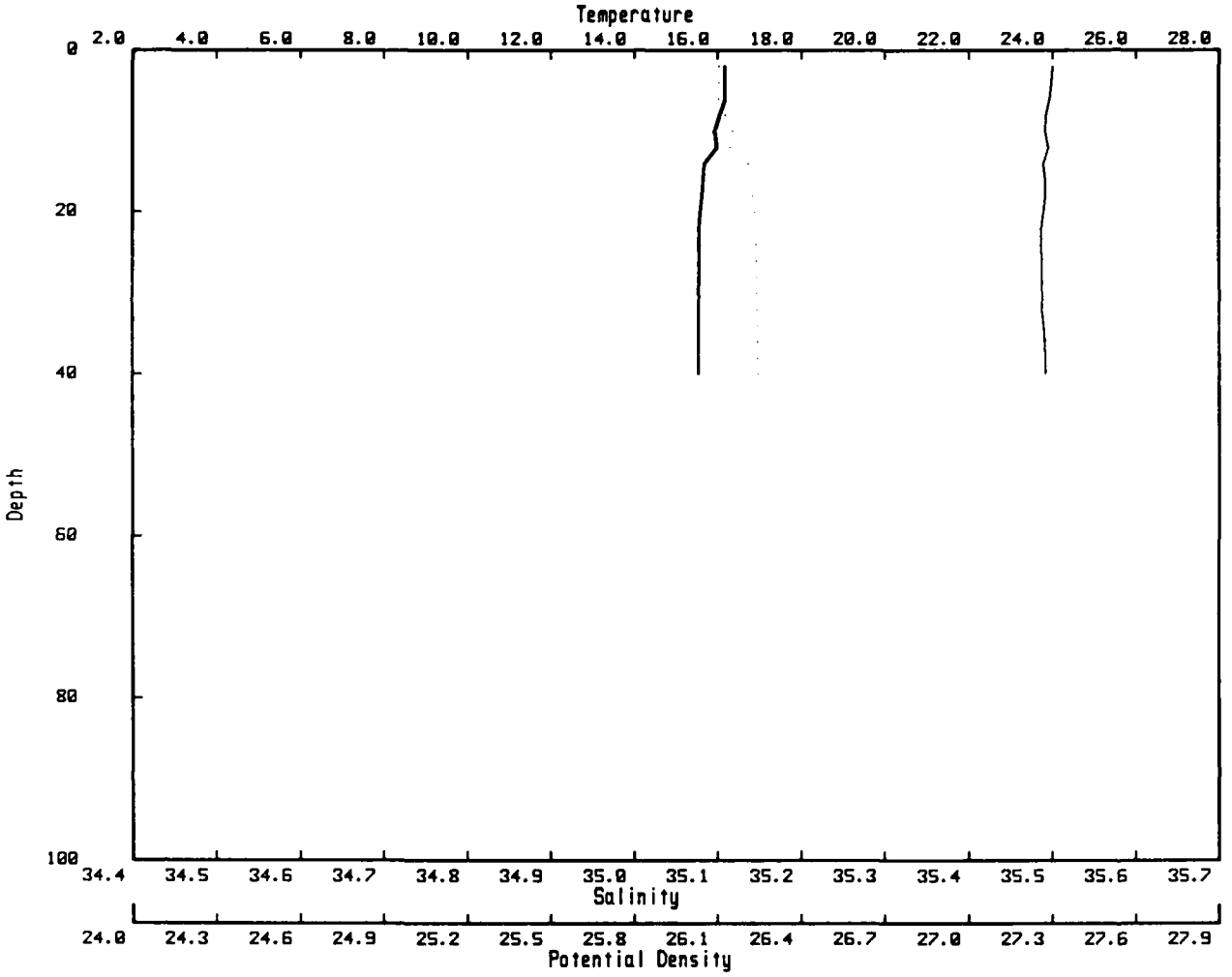
STATION PC7019 : 31 4.8 N 114 10.6 W 12/ 3/85 727Z 168/ 173m



Day: 71.30 SST: 16.5 Tdry: 16.9 Twet: 15.0 Wspd: 6.8 CTD #: 3
NG1-13.
ANC 17 SEP 85 CH:LTD,LTMIN,LGMIN,WD,CD. POS:SHL/RAD

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.344	35.316	25.929	70.0	14.331	35.183	26.278
10.0	15.599	35.315	26.099	80.0	14.189	35.159	26.290
20.0	15.327	35.307	26.154	90.0	14.059	35.145	26.307
30.0	15.060	35.272	26.187	100.0	14.042	35.150	26.315
40.0	14.808	35.270	26.241	120.0	14 431	35.275	26.329
50.0	14.659	35.241	26.252	140.0	14.254	35.270	26.364
60.0	14.432	35.198	26.268	160.0	14.320	35.306	26.378

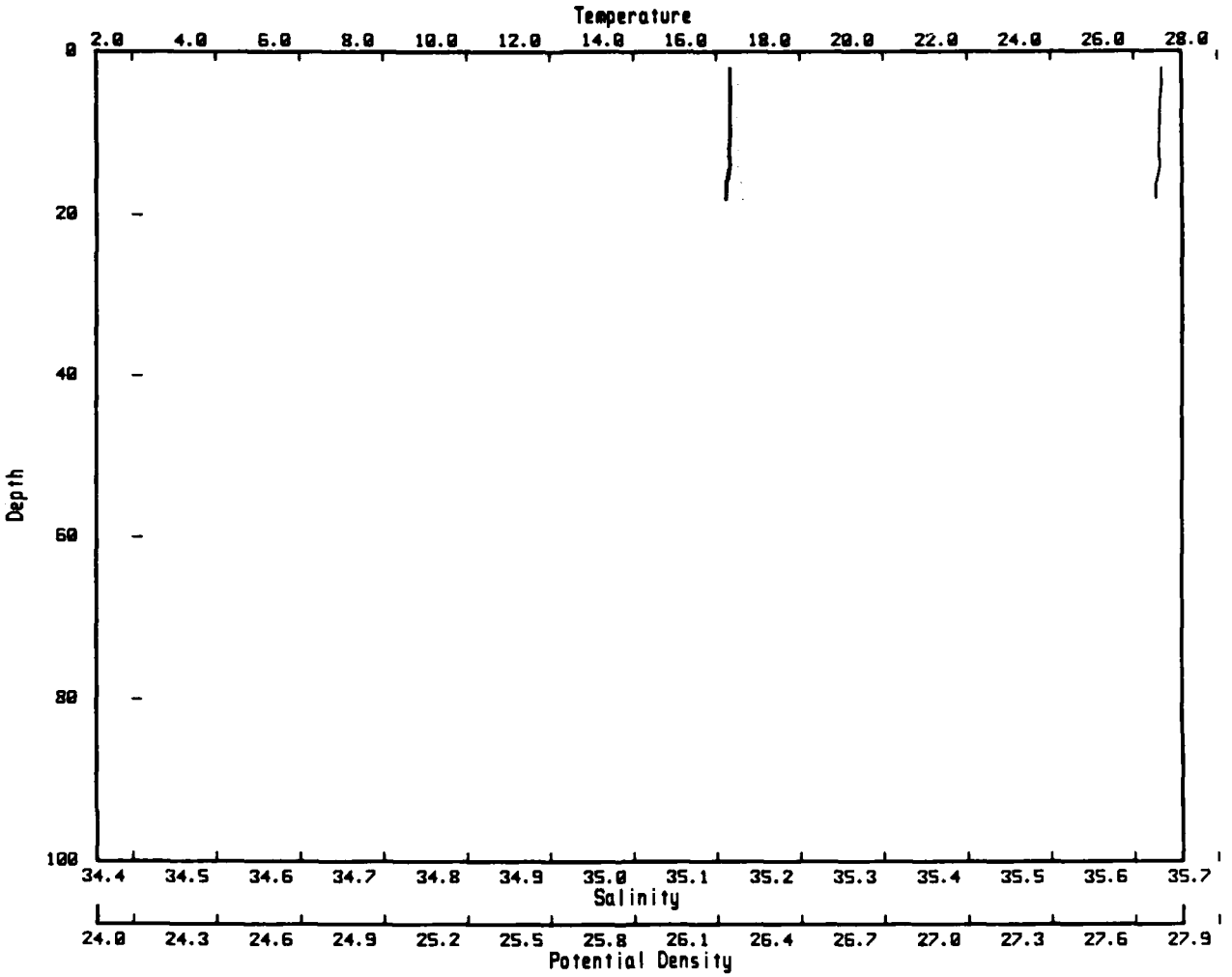
STATION PC7020 : 31 11.0 N 113 53.5 W 12/ 3/85 945Z 42/ 47m



Day: 71.39 SST: 16.4 Tdry: 16.5 Twet: 13.1 Wspd: 21.8 CTD #: 0
NG1-14
ANC 17 SEP 85 CH:LTMIN,LGD,LGMIN,WD,CD. POS:SHL/RAD

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.189	35.501	26.107	30.0	15.557	35.488	26.242
10.0	15.947	35.492	26.156	40.0	15.557	35.492	26.246
20.0	15.598	35.490	26.234				

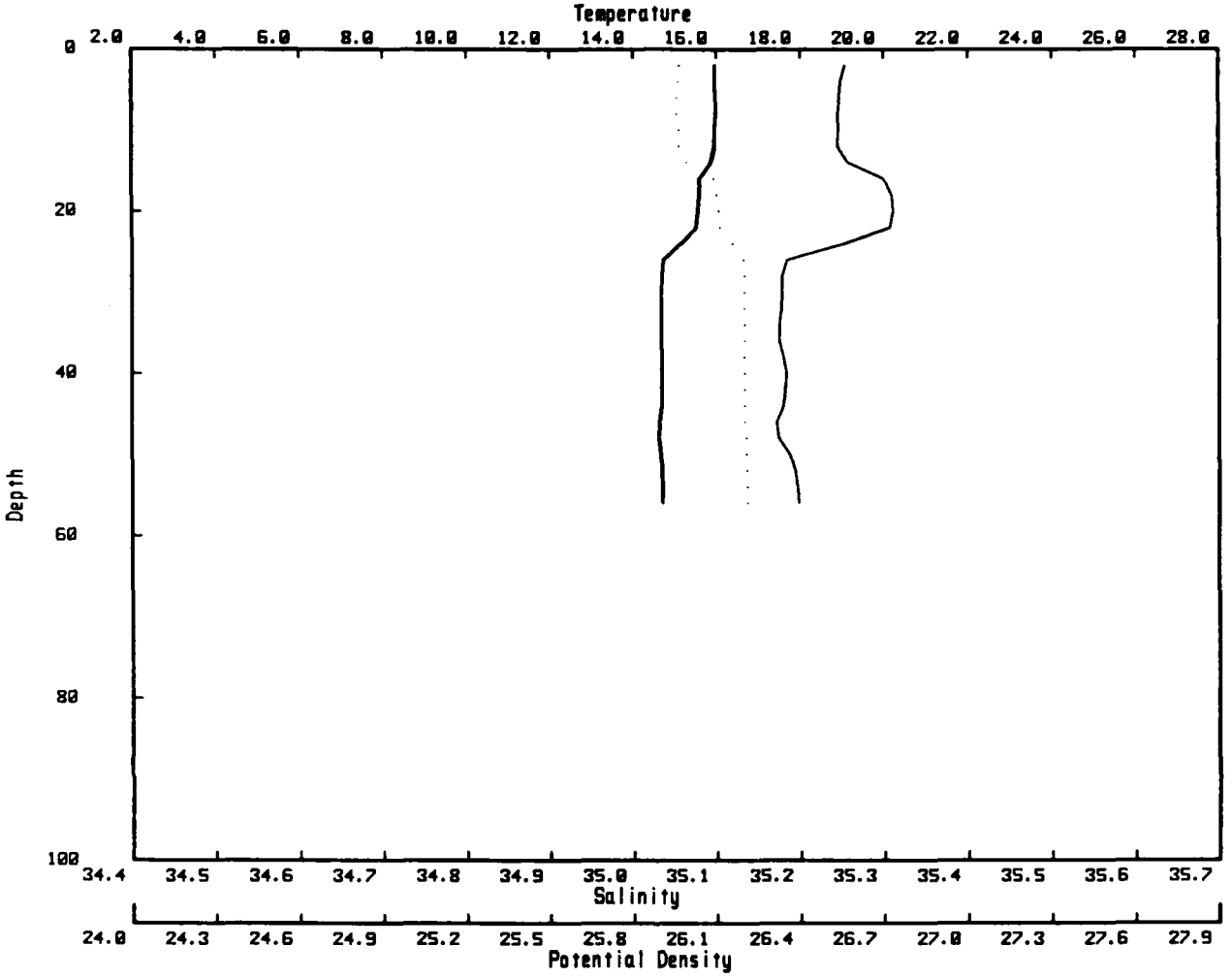
STATION PC7021 : 31 15.1 N 113 40.2 W 12/ 3/85 1118Z 18/ 23m



Day: 71.47 SST: 16.6 Tdry: 15.9 Twet: 12.0 Wspd: 26.8 CTD #: 3
NG1-15
ANC 17 SEP 85 CH:WD,CD,LTMIN,LGMIN. POS:SHL/RAD

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.325	35.633	26.177	10.0	16.323	35.630	26.175

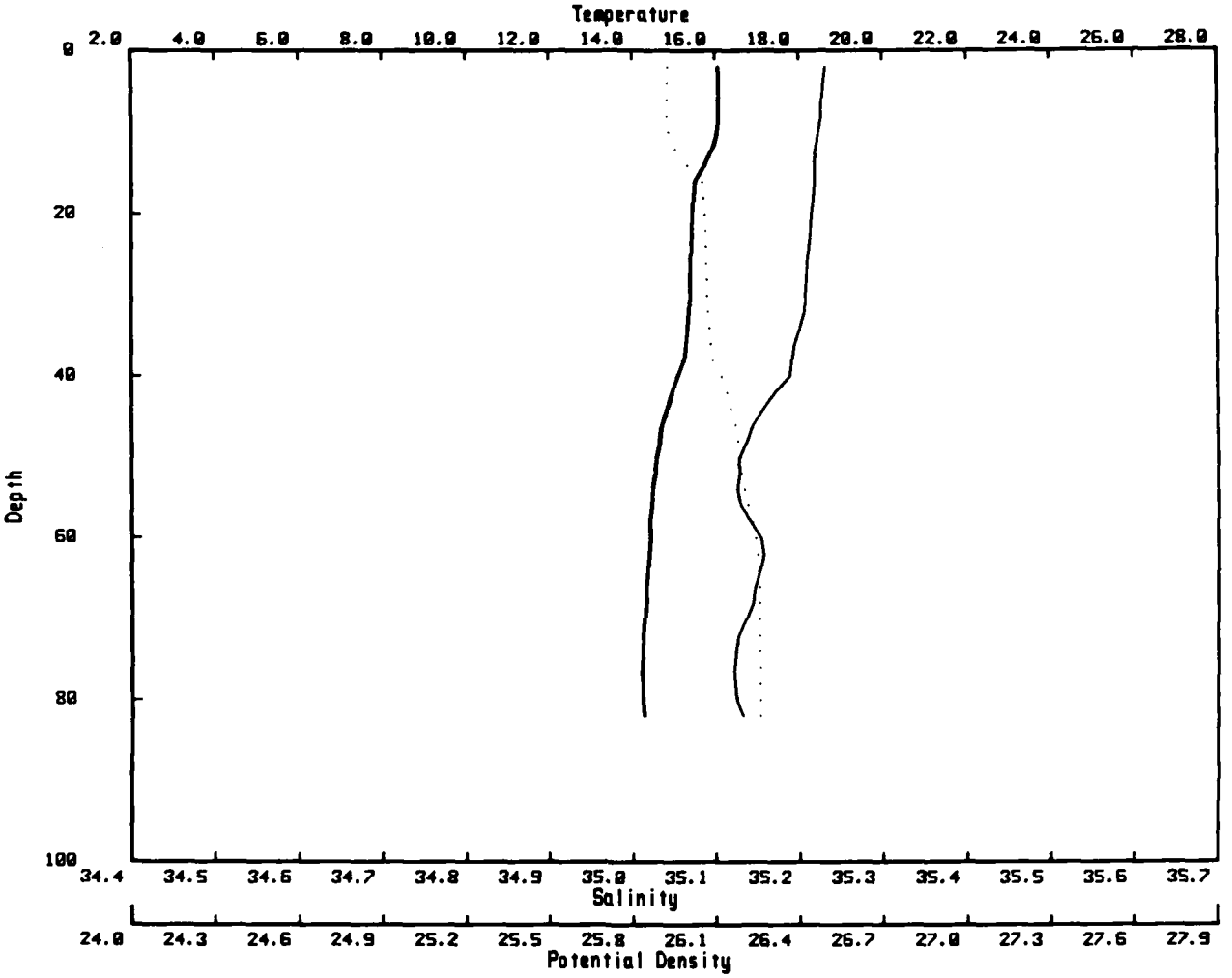
STATION PC7022 : 31 .2 N 113 43.8 W 12/ 3/85 1300Z 61/ 66m



Day: 71.54 SST: 16.2 Tdry: 15.9 Twet: 12.5 Wspd: 18.2 CTD #: 3
NG1-16
ANC 17 SEP 85 CH:WD,CD,LTMIN,LGMIN. POS:SHL/?

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	15.967	35.254	25.968	30.0	14.672	35.178	26.200
10.0	15.957	35.246	25.965	40.0	14.692	35.184	26.200
20.0	15.546	35.311	26.108	50.0	14.668	35.188	26.209

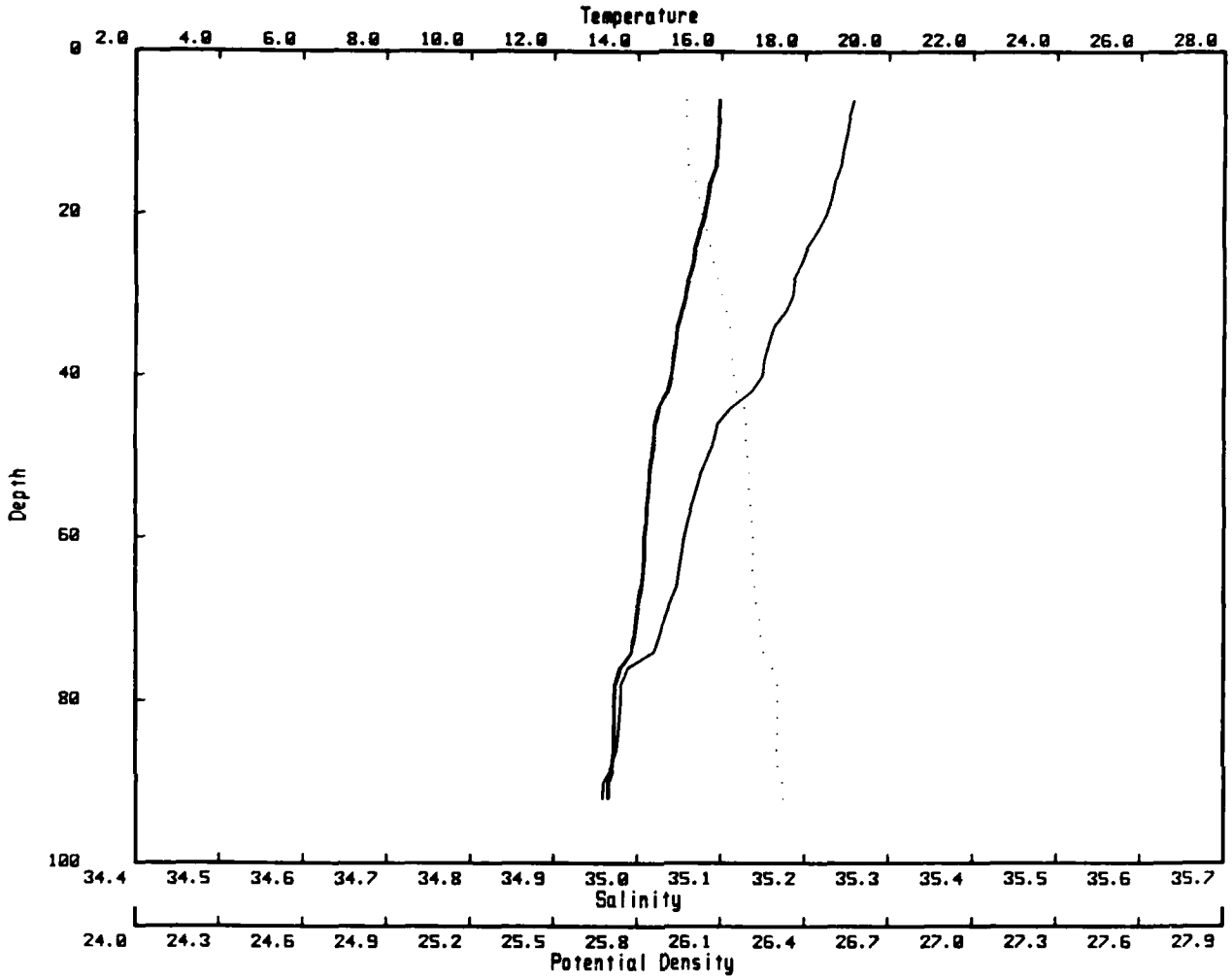
STATION PC7023 : 30 42.1 N 113 47.1 W 12/ 3/85 1503Z 80/ 84m



Day: 71.63 SST: 16.3 Tdry: 15.8 Twet: 12.6 Wspd: 15.7 CTD #: 3
NG1-17
ANC 17 SEP 85 CH:WD,CD,LTMIN,LGMIN. POS:SHL/?

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.069	35.232	25.928	50.0	14.558	35.127	26.186
10.0	16.033	35.223	25.930	60.0	14.403	35.153	26.239
20.0	15.429	35.215	26.061	70.0	14.269	35.135	26.255
30.0	15.372	35.207	26.068	80.0	14.225	35.124	26.256
40.0	15.076	35.188	26.119				

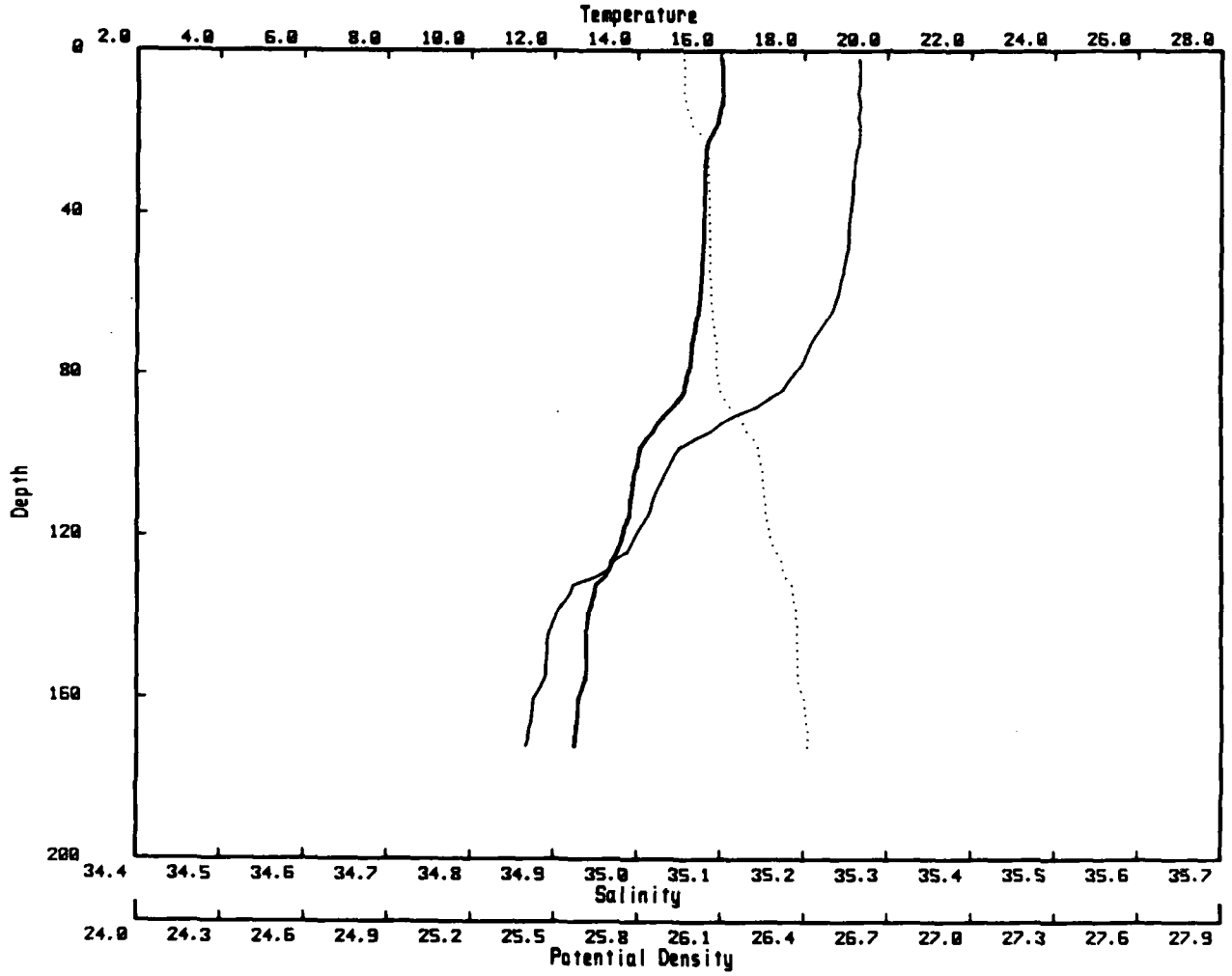
STATION PC7024 : 30 33.5 N 113 50.2 W 12/ 3/85 1612Z 90/ 95m



Day: 71.67 SST: 16.2 Tdry: 16.0 Twet: 12.7 Wspd: 17.5 CTD #: 3
NG1-18. POSITION NOMINAL. NO SATNAV AT THE MOMENT.
ANC 17 SEP 85 CH:WD,CD,LTMIN,LGMIN. POS:SHL/?

PR	TE	SA	SGTH	PR	TE	SA	SGTH
10.0	15.922	35.250	25.976	60.0	14.169	35.056	26.215
20.0	15.611	35.226	26.028	70.0	13.971	35.032	26.238
30.0	15.147	35.186	26.102	80.0	13.461	34.981	26.305
40.0	14.820	35.150	26.146	90.0	13.303	34.959	26.321
50.0	14.357	35.084	26.196				

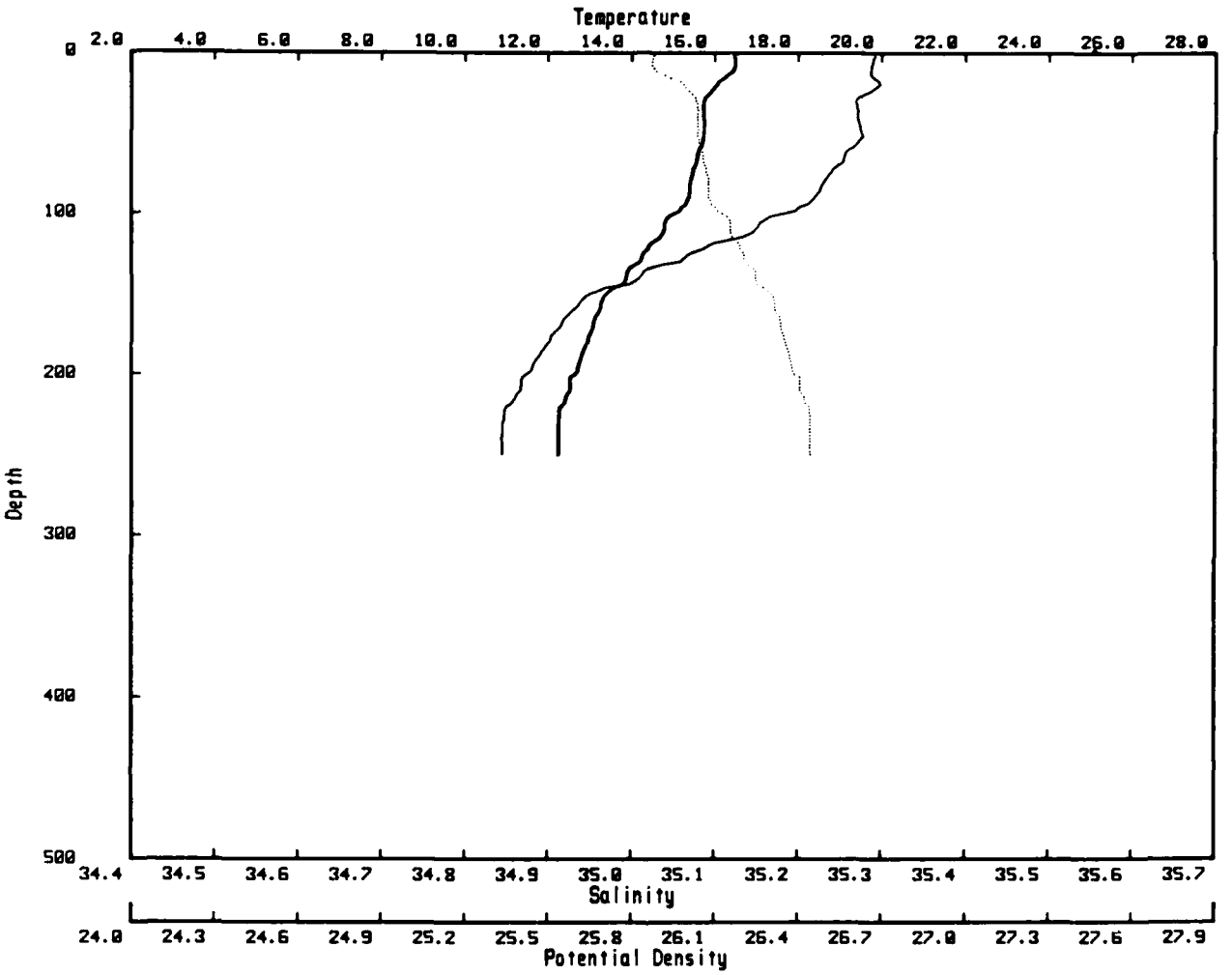
STATION PC7025 : 30 26.7 N 113 50.7 W 12/ 3/85 1712Z 172/ 177m



Day: 71.71 SST: 16.3 Tdry: 16.1 Twet: 12.6 Wspd: 2.4 CTD #: 3
NG1-19
ANC 17 SEP 85 CH:WD,CD,LTMIN,LGMIN. POS:SHL/?

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.018	35.266	25.966	70.0	15.354	35.214	26.079
10.0	16.025	35.264	25.963	80.0	15.211	35.188	26.091
20.0	15.779	35.266	26.021	90.0	14.640	35.117	26.162
30.0	15.614	35.260	26.054	100.0	14.017	35.044	26.239
40.0	15.589	35.255	26.056	120.0	13.645	34.997	26.281
50.0	15.559	35.251	26.060	140.0	12.824	34.901	26.374
60.0	15.506	35.241	26.065	160.0	12.586	34.875	26.401

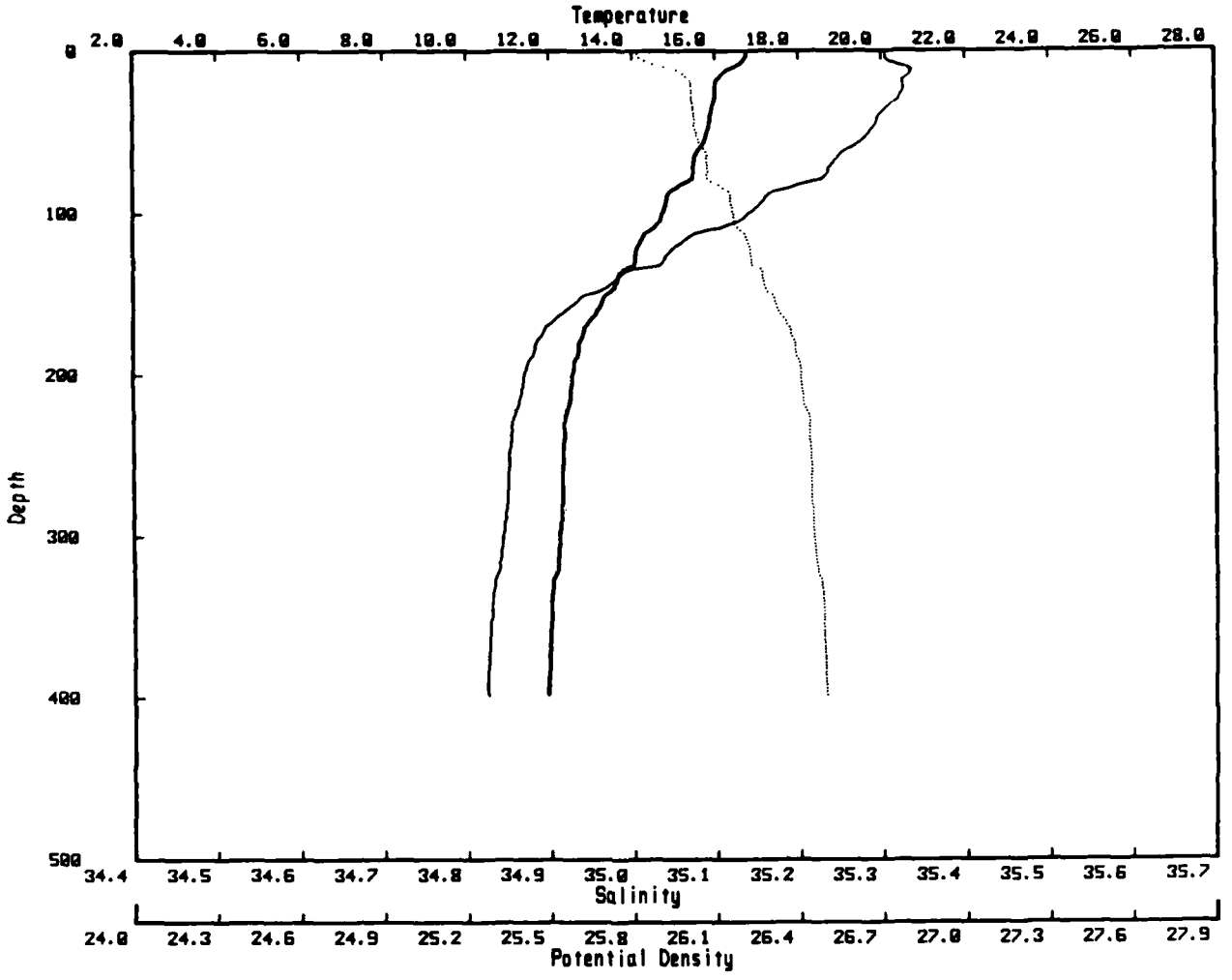
STATION PC7026 : 30 19.4 N 113 51.5 W 12/ 3/85 1808Z 250/ 255m



Day: 71.75 SST: 16.7 Tdry: 15.9 Twet: 12.5 Wspd: 14.3 CTD #: 3
NG1-20
ANC 17 SEP 85 CH:WD,CD,LTMIN,LGMIN. POS:SHL/?

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.476	35.292	25.880	80.0	15.413	35.231	26.079
10.0	16.462	35.288	25.880	90.0	15.377	35.220	26.079
20.0	16.039	35.298	25.986	100.0	15.023	35.182	26.128
30.0	15.737	35.269	26.033	120.0	14.427	35.093	26.190
40.0	15.728	35.271	26.037	140.0	13.866	35.009	26.245
50.0	15.742	35.277	26.039	160.0	13.220	34.929	26.316
60.0	15.637	35.262	26.052	180.0	12.930	34.900	26.353
70.0	15.530	35.248	26.065	200.0	12.651	34.874	26.389

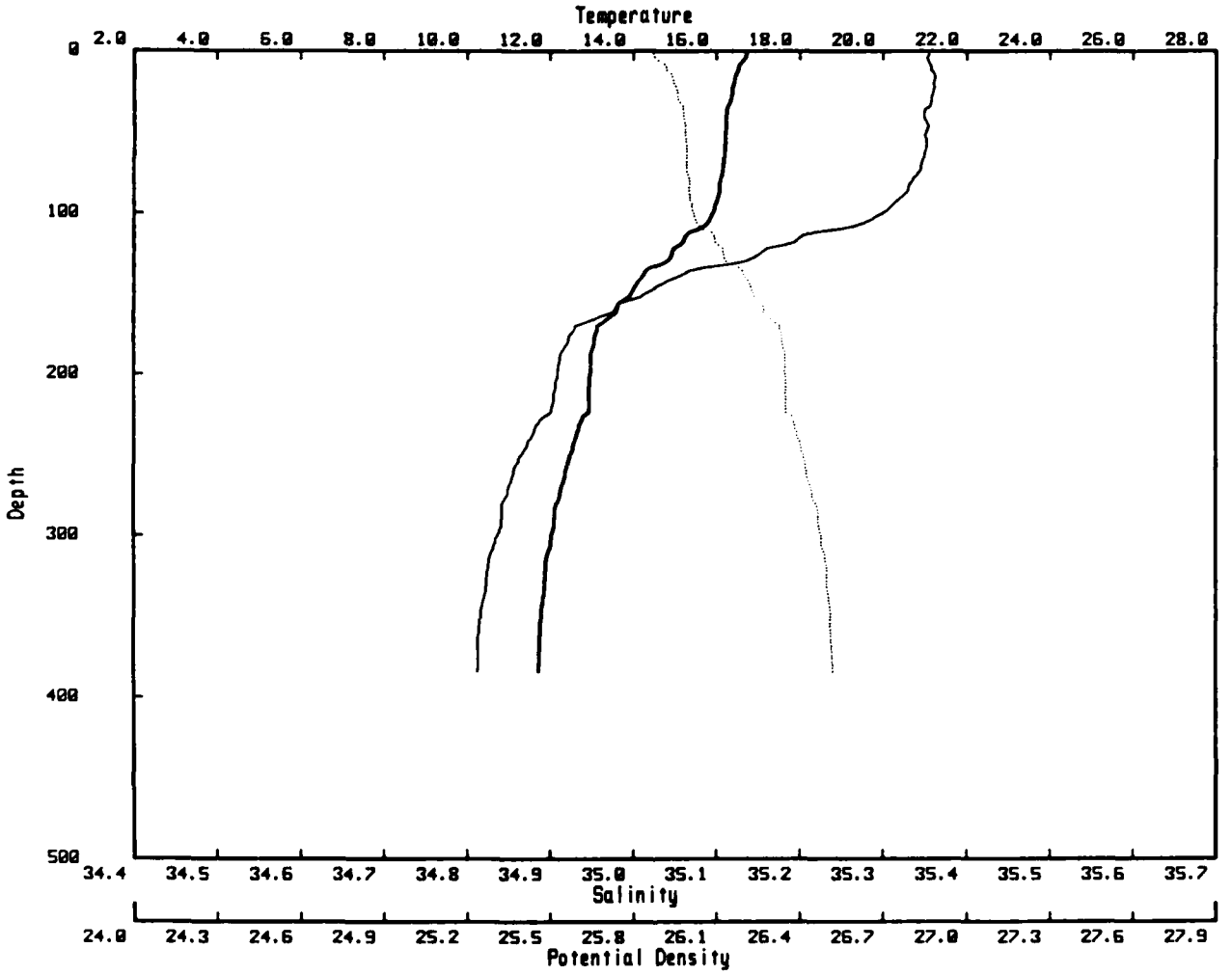
STATION PC7027 : 30 15.0 N 113 49.1 W 12/ 3/85 2013Z 398/ 403m



Day: 71.84 SST: 17.1 Tdry: 15.8 Twet: 12.2 Wspd: 12.3 CTD #: 3
NG1-21.POSITION IS OMEGFA.
ANC 17 SEP 85 CH:WD,CD,LGMIN,LTMIN. POS:SHL/OME

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.769	35.305	25.821	90.0	14.827	35.160	26.154
10.0	16.452	35.331	25.916	100.0	14.704	35.138	26.164
20.0	16.018	35.326	26.013	120.0	14.122	35.051	26.223
30.0	15.991	35.320	26.015	140.0	13.630	34.980	26.271
40.0	15.873	35.295	26.023	160.0	13.132	34.918	26.326
50.0	15.798	35.285	26.033	180.0	12.697	34.883	26.386
60.0	15.596	35.259	26.059	200.0	12.538	34.869	26.407
70.0	15.474	35.239	26.071	300.0	12.216	34.842	26.451
80.0	15.337	35.216	26.084				

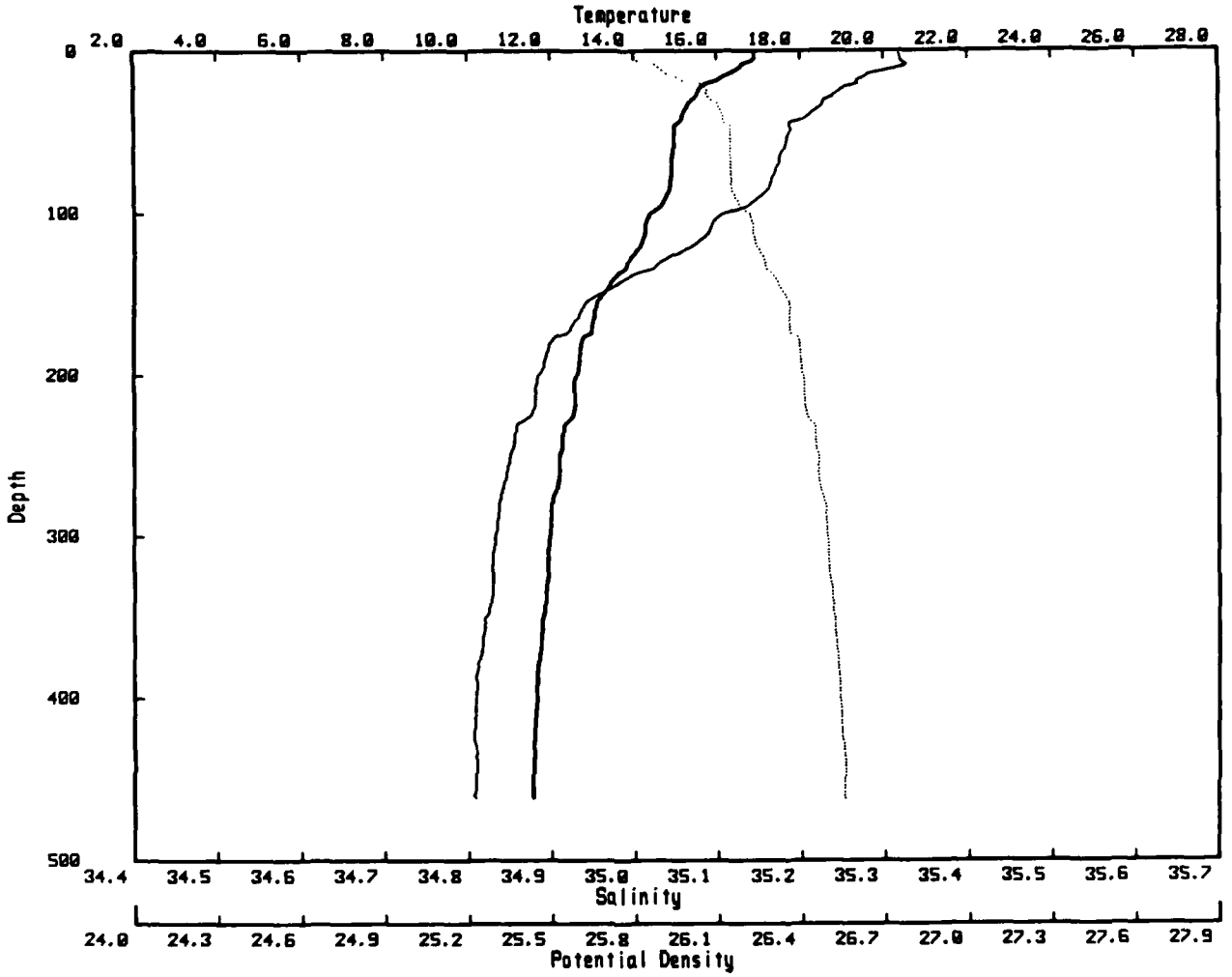
STATION PC7028 : 30 5.8 N 113 57.7 W 12/ 3/85 2201Z 382/ 387m



Day: 71.92 SST: 17.0 Tdry: 15.9 Twet: 12.5 Wspd: 9.0 CTD #: 3
NG1-22.
ANC 17 SEP 85 CH:WD,CD,LTMIN,LGMIN. POS:SHL/OME

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.717	35.355	25.872	90.0	16.041	35.322	26.007
10.0	16.528	35.358	25.919	100.0	15.915	35.300	26.019
20.0	16.421	35.360	25.946	120.0	15.118	35.182	26.108
30.0	16.346	35.358	25.962	140.0	14.207	35.052	26.206
40.0	16.233	35.349	25.981	160.0	13.619	34.977	26.272
50.0	16.218	35.351	25.987	180.0	13.075	34.922	26.341
60.0	16.201	35.351	25.991	200.0	12.984	34.910	26.350
70.0	16.177	35.346	25.993	300.0	12.041	34.837	26.481
80.0	16.098	35.335	26.003				

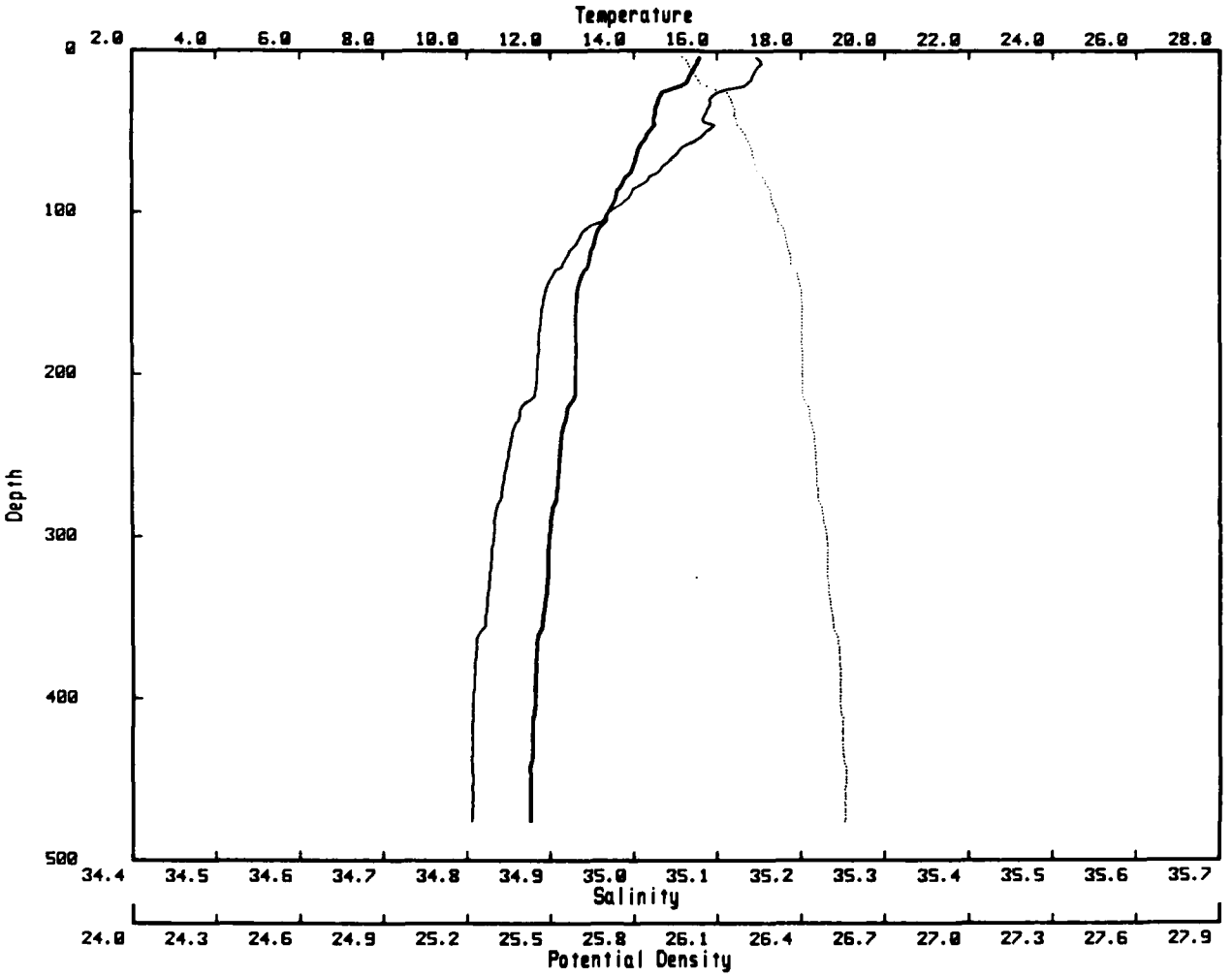
STATION PC7029 : 29 54.9 N 114 .8 W 12/ 3/85 2Z 460/ 465m



Day: 72.00 SST: 17.1 Tdry: 16.5 Twet: 12.6 Wspd: 9.3 CTD #: 3
NG1-23.
ANC 17 SEP 85 CH:WD,CD,LGMIN,LTMIN. POS:SHL/? *** uptrace ***

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.908	35.319	25.799	90.0	14.745	35.148	26.163
10.0	16.542	35.321	25.887	100.0	14.351	35.105	26.215
20.0	15.713	35.268	26.038	120.0	14.113	35.068	26.238
30.0	15.396	35.228	26.079	140.0	13.482	34.988	26.308
40.0	15.150	35.208	26.118	160.0	13.043	34.935	26.357
50.0	14.954	35.186	26.145	180.0	12.714	34.898	26.394
60.0	14.931	35.180	26.146	200.0	12.600	34.884	26.406
70.0	14.900	35.172	26.147	300.0	11.948	34.832	26.495
80.0	14.864	35.164	26.149	400.0	11.638	34.809	26.538

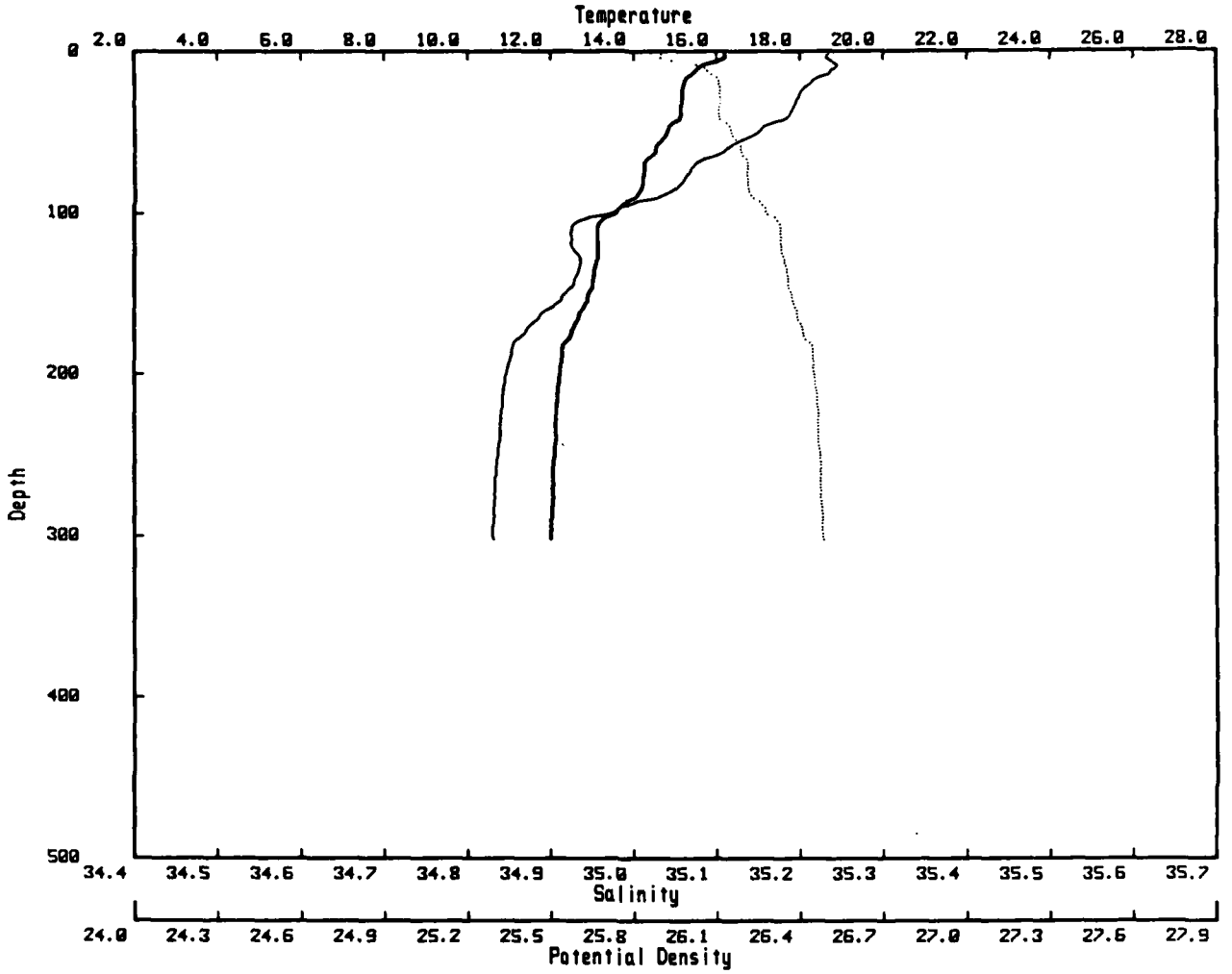
STATION PC7030 : 29 51.4 N 114 1.0 W 12/ 3/85 103Z 479/ 484m



Day: 72.04 SST: 16.0 Tdry: 16.0 Twet: 13.0 Wspd: 3.1 CTD #: 3
NG1-24.
ANC 17 SEP 85 CH:WD,CD. POS:OK *** uptrace ***

PR	TE	SA	SGTH	PR	TE	SA	SGTH
10.0	15.470	35.148	26.000	100.0	13.382	34.970	26.313
20.0	15.258	35.136	26.038	120.0	13.051	34.931	26.351
30.0	14.598	35.091	26.149	140.0	12.748	34.902	26.390
40.0	14.509	35.085	26.164	160.0	12.628	34.890	26.405
50.0	14.383	35.086	26.192	180.0	12.617	34.886	26.404
60.0	14.137	35.058	26.223	200.0	12.609	34.884	26.405
70.0	14.009	35.039	26.236	300.0	11.968	34.832	26.491
80.0	13.755	35.017	26.272	400.0	11.621	34.807	26.539
90.0	13.571	34.995	26.294				

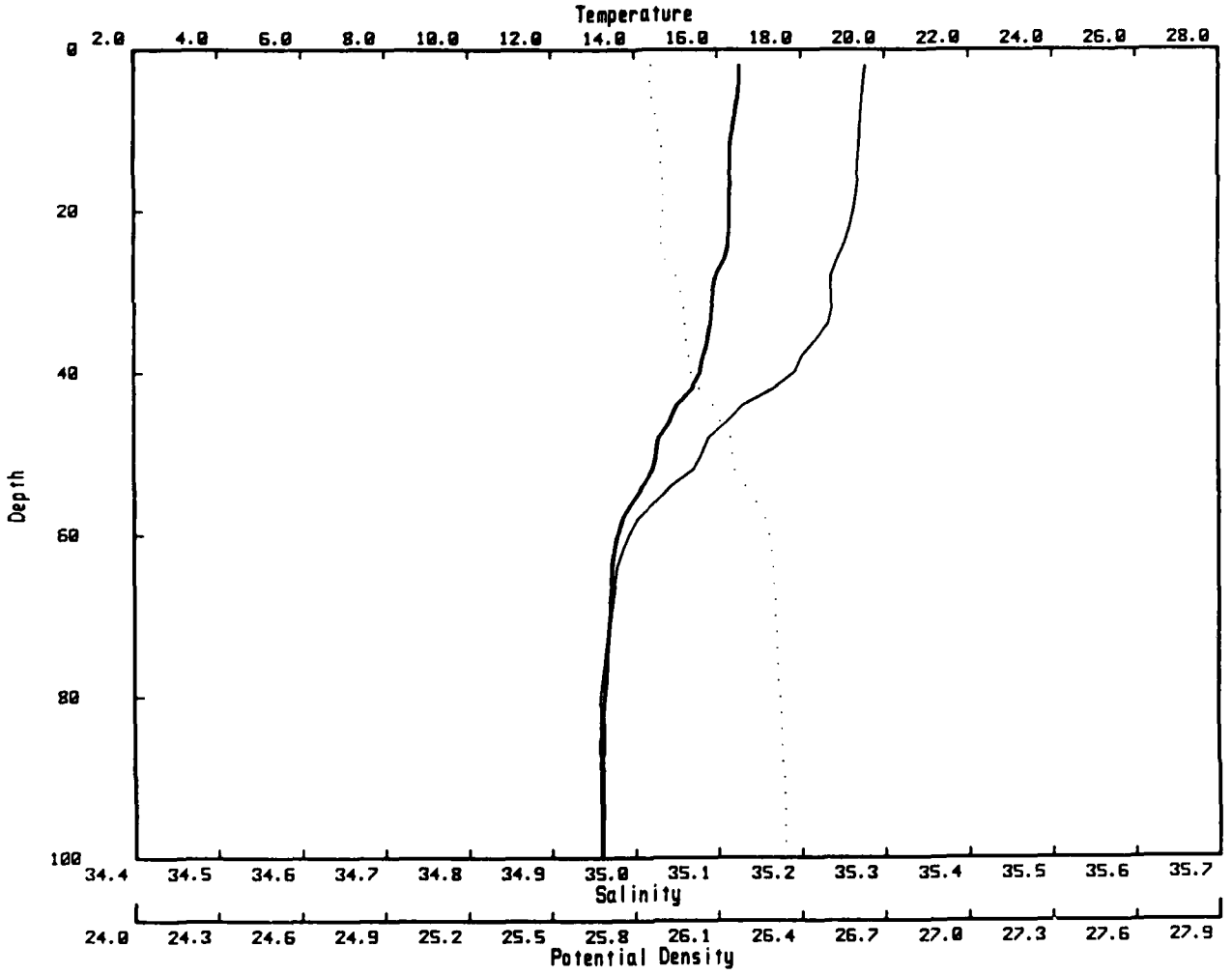
STATION PC7031 : 29 45.1 N 114 2.8 W 12/ 3/85 215Z 301/ 306m



Day: 72.09 SST: 16.4 Tdry: 15.7 Twet: 13.0 Wspd: 3.6 CTD #: 3
NG1-25
ANC 17 SEP 85 CH:WD,CD. POS:OK

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.197	35.234	25.900	90.0	13.993	35.026	26.230
10.0	15.547	35.243	26.056	100.0	13.526	34.970	26.284
20.0	15.211	35.212	26.107	120.0	13.130	34.925	26.330
30.0	15.141	35.195	26.110	140.0	13.018	34.929	26.357
40.0	15.116	35.186	26.109	160.0	12.728	34.894	26.388
50.0	14.790	35.148	26.152	180.0	12.339	34.856	26.435
60.0	14.508	35.111	26.185	200.0	12.213	34.846	26.452
70.0	14.246	35.072	26.211	300.0	11.999	34.830	26.484
80.0	14.202	35.058	26.210				

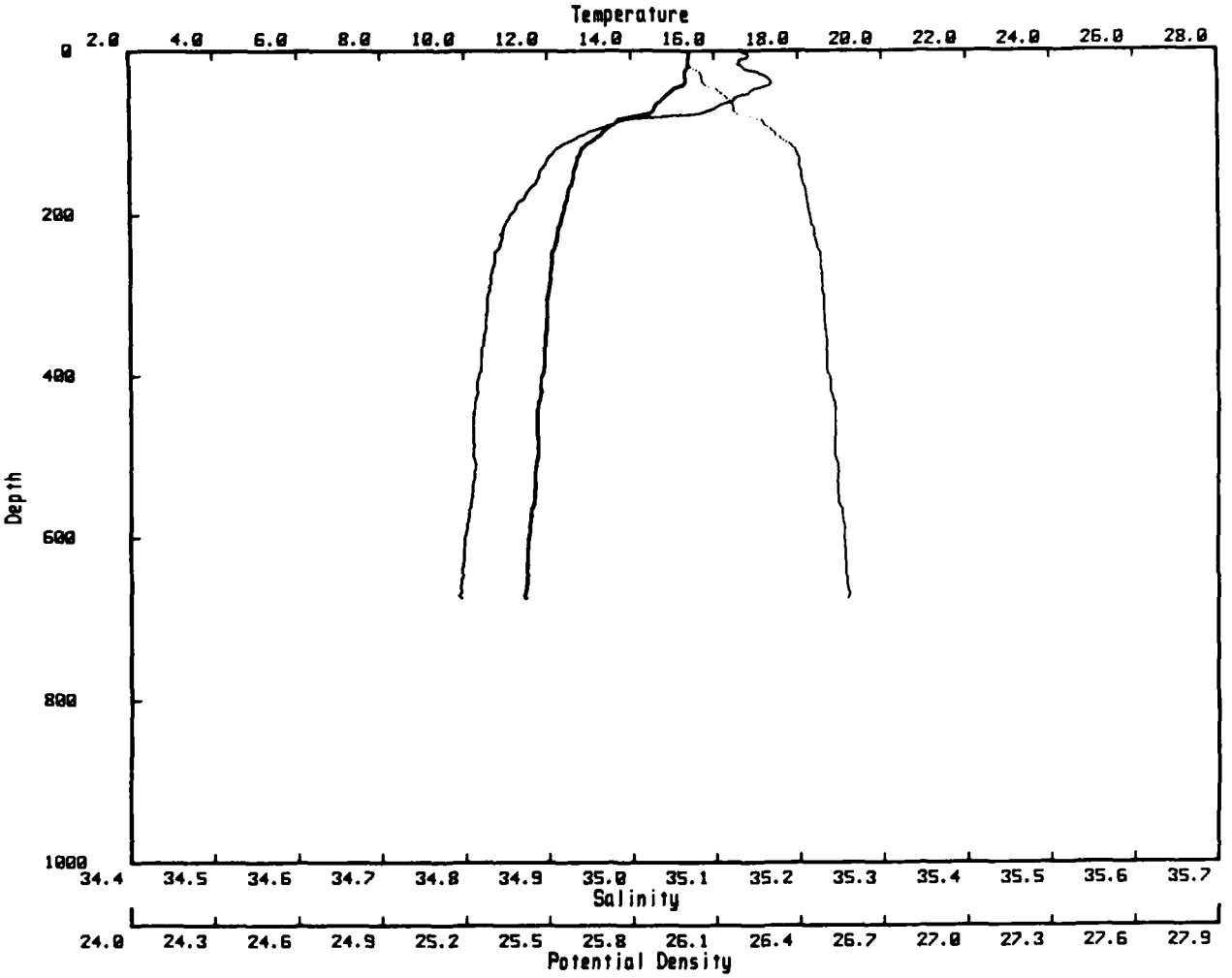
STATION PC7032 : 29 37.5 N 114 4.0 W 12/ 3/85 342Z 99/ 104m



Day: 72.14 SST: 16.7 Tdry: 15.9 Twet: 12.8 Wspd: 5.2 CTD #: 3
NG1-26.
ANC 17 SEP 85 CH:WD,CD,LGMIN. POS:SHL/RAD.

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.513	35.277	25.860	60.0	13.600	34.994	26.286
10.0	16.374	35.271	25.888	70.0	13.410	34.972	26.308
20.0	16.286	35.263	25.902	80.0	13.282	34.959	26.325
30.0	15.912	35.237	25.969	90.0	13.229	34.958	26.335
40.0	15.596	35.193	26.007	100.0	13.214	34.958	26.338
50.0	14.535	35.082	26.156				

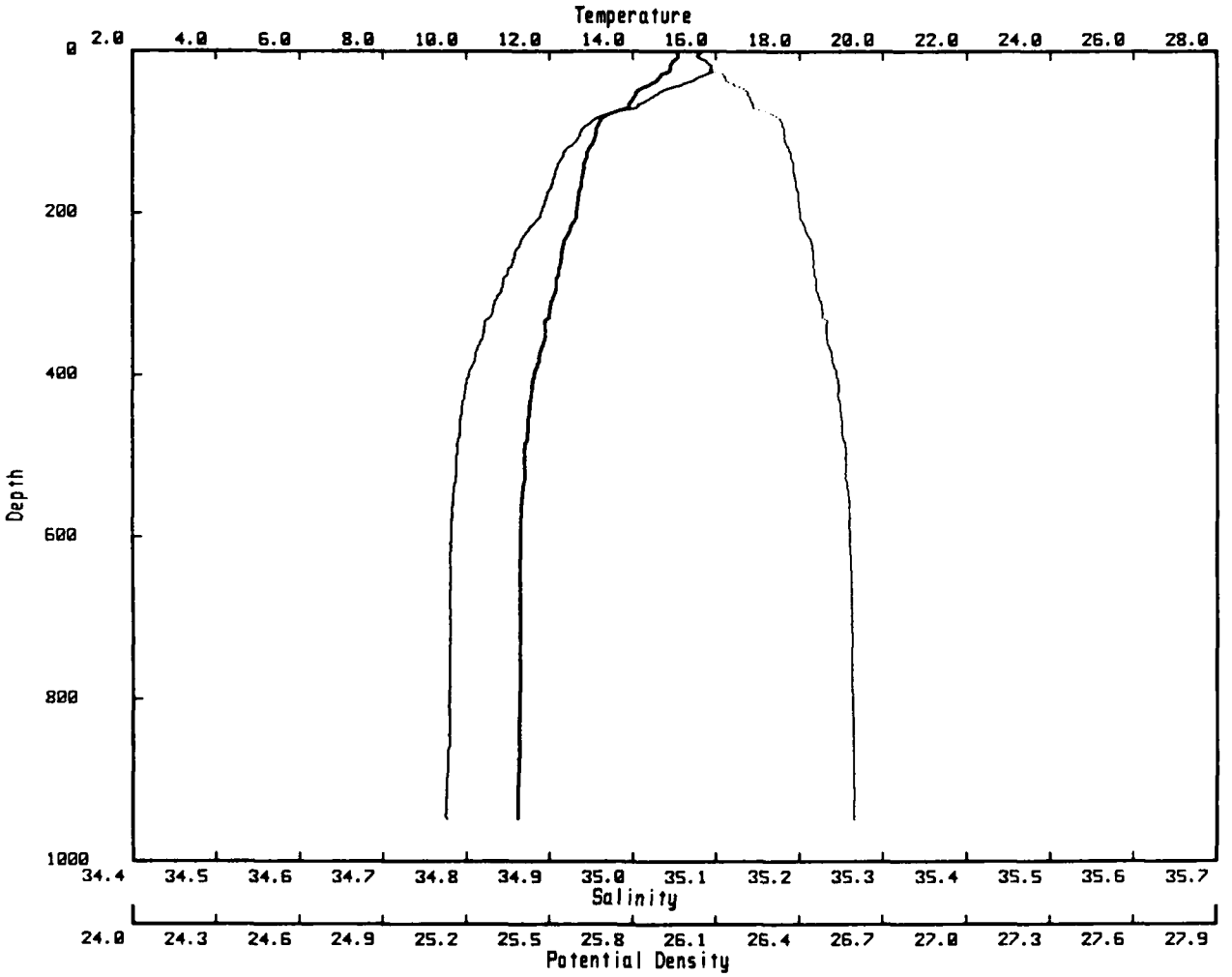
STATION PC7033 : 29 37.7 N 113 58.0 W 12/ 3/85 440Z 674/ 679m



Day: 72.18 SST: 15.7 Tdry: 15.5 Twet: 13.2 Wspd: 4.3 CTD #: 3
NG1-27.
ANC 17 SEP 85 CH:WD,CD. POS:OK

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	15.403	35.134	26.004	100.0	13.271	34.945	26.317
10.0	15.381	35.134	26.009	120.0	12.776	34.908	26.388
20.0	15.350	35.133	26.016	140.0	12.653	34.894	26.402
30.0	15.277	35.159	26.052	160.0	12.561	34.885	26.414
40.0	15.268	35.168	26.061	180.0	12.439	34.870	26.427
50.0	14.913	35.141	26.119	200.0	12.312	34.853	26.439
60.0	14.709	35.124	26.151	300.0	11.969	34.827	26.487
70.0	14.544	35.099	26.168	400.0	11.824	34.816	26.508
80.0	14.026	35.032	26.227	500.0	11.712	34.809	26.526
90.0	13.563	34.975	26.280	600.0	11.505	34.799	26.560

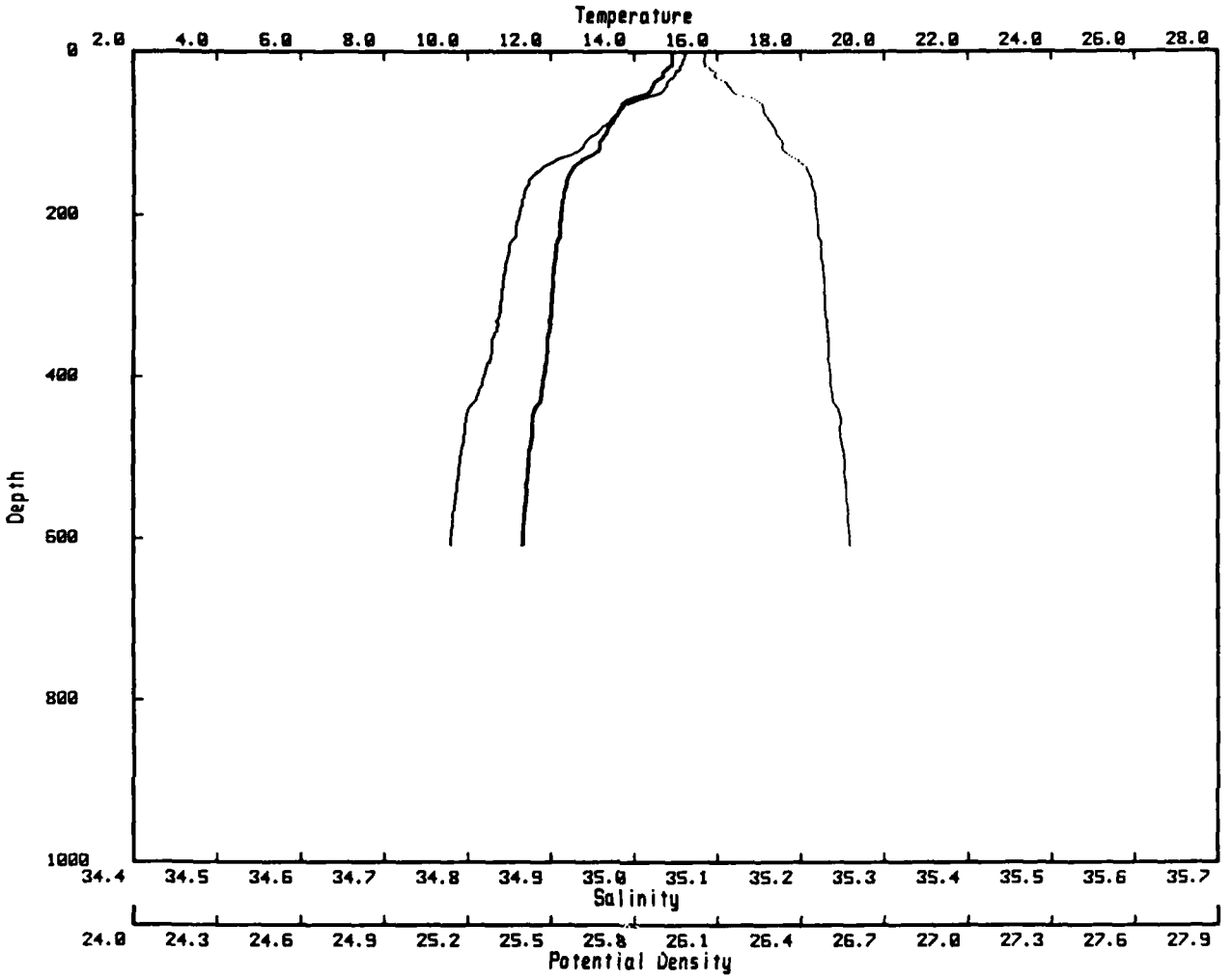
STATION PC7034 : 29 39.0 N 113 53.5 W 12/ 3/85 603Z 947/ 952m



Day: 72.25 SST: 15.3 Tdry: 15.3 Twet: 13.6 Wspd: 10.3 CTD #: 3
NG1-28.
ANC 17 SEP 85 CH:WD,CD,LTMIN. POS:SHL/RAD.

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	15.081	35.082	26.035	140.0	12.834	34.910	26.379
10.0	15.013	35.084	26.052	160.0	12.770	34.904	26.387
20.0	14.907	35.094	26.083	180.0	12.695	34.896	26.396
30.0	14.662	35.085	26.130	200.0	12.642	34.889	26.402
40.0	14.429	35.061	26.162	300.0	12.115	34.839	26.468
50.0	14.083	35.032	26.214	400.0	11.638	34.803	26.533
60.0	13.985	35.018	26.224	500.0	11.406	34.788	26.567
70.0	13.870	35.003	26.237	600.0	11.308	34.782	26.583
80.0	13.329	34.961	26.317	700.0	11.283	34.780	26.588
90.0	13.172	34.946	26.337	800.0	11.272	34.779	26.592
100.0	13.103	34.937	26.345	900.0	11.254	34.777	26.596
120.0	12.949	34.921	26.364				

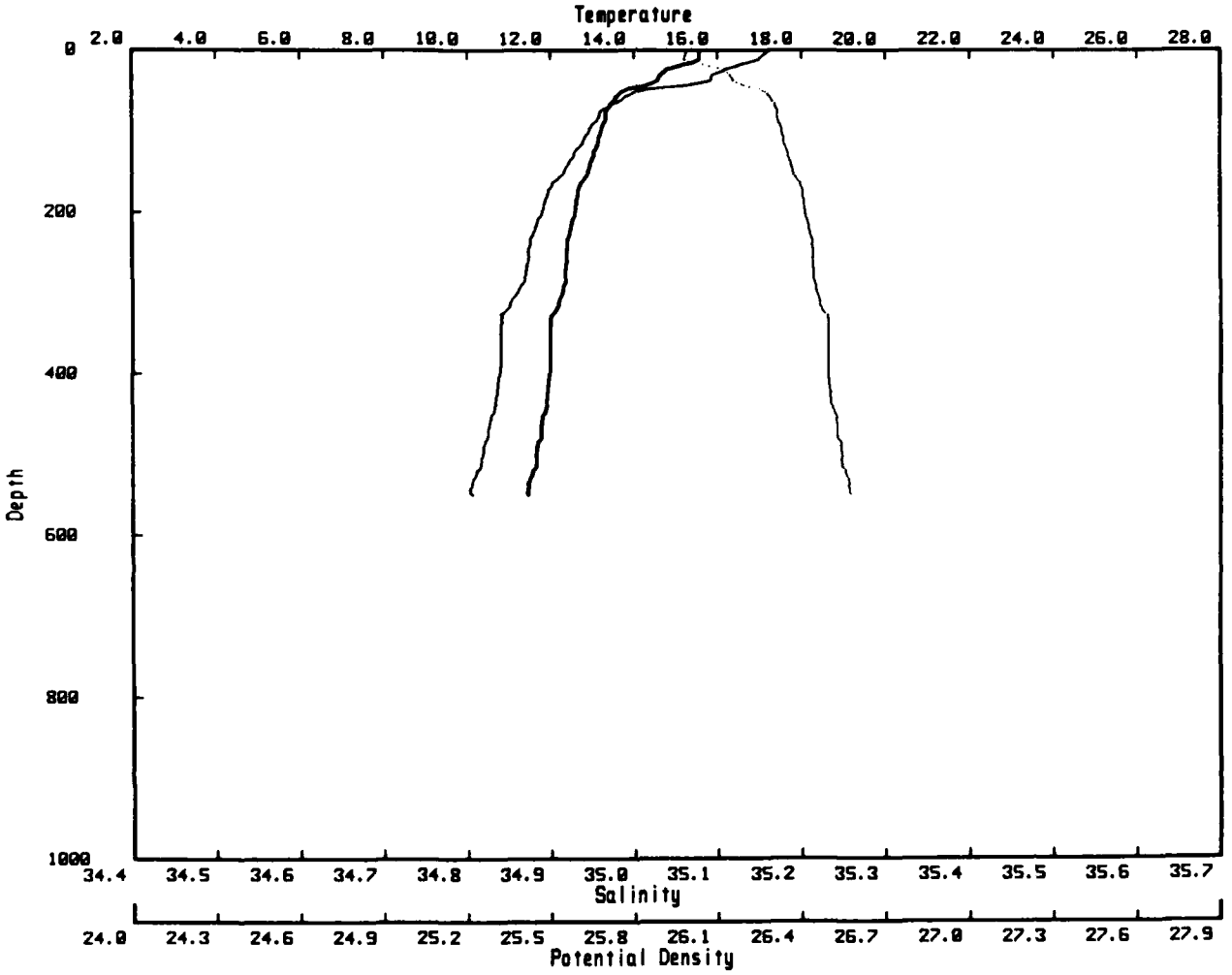
STATION PC7035 : 29 39.5 N 113 48.1 W 13/ 3/85 738Z 608/ 613m



Day: 72.31 SST: 15.0 Tdry: 15.1 Twet: 13.6 Wspd: 1.5 CTD #: 3
NG1-29
ANC 17 SEP 85 CH:WD,CD,LTMIN,LGMIN. POS:SHL/RAD.

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	14.920	35.062	26.055	100.0	13.330	34.955	26.312
10.0	14.918	35.059	26.054	120.0	13.144	34.935	26.335
20.0	14.820	35.056	26.073	140.0	12.557	34.892	26.420
30.0	14.706	35.048	26.092	160.0	12.376	34.873	26.441
40.0	14.474	35.040	26.137	180.0	12.287	34.866	26.453
50.0	14.332	35.032	26.161	200.0	12.244	34.862	26.459
60.0	13.837	35.001	26.242	300.0	12.027	34.841	26.487
70.0	13.664	34.986	26.267	400.0	11.840	34.820	26.508
80.0	13.557	34.976	26.281	500.0	11.470	34.791	26.557
90.0	13.417	34.965	26.302	600.0	11.333	34.780	26.577

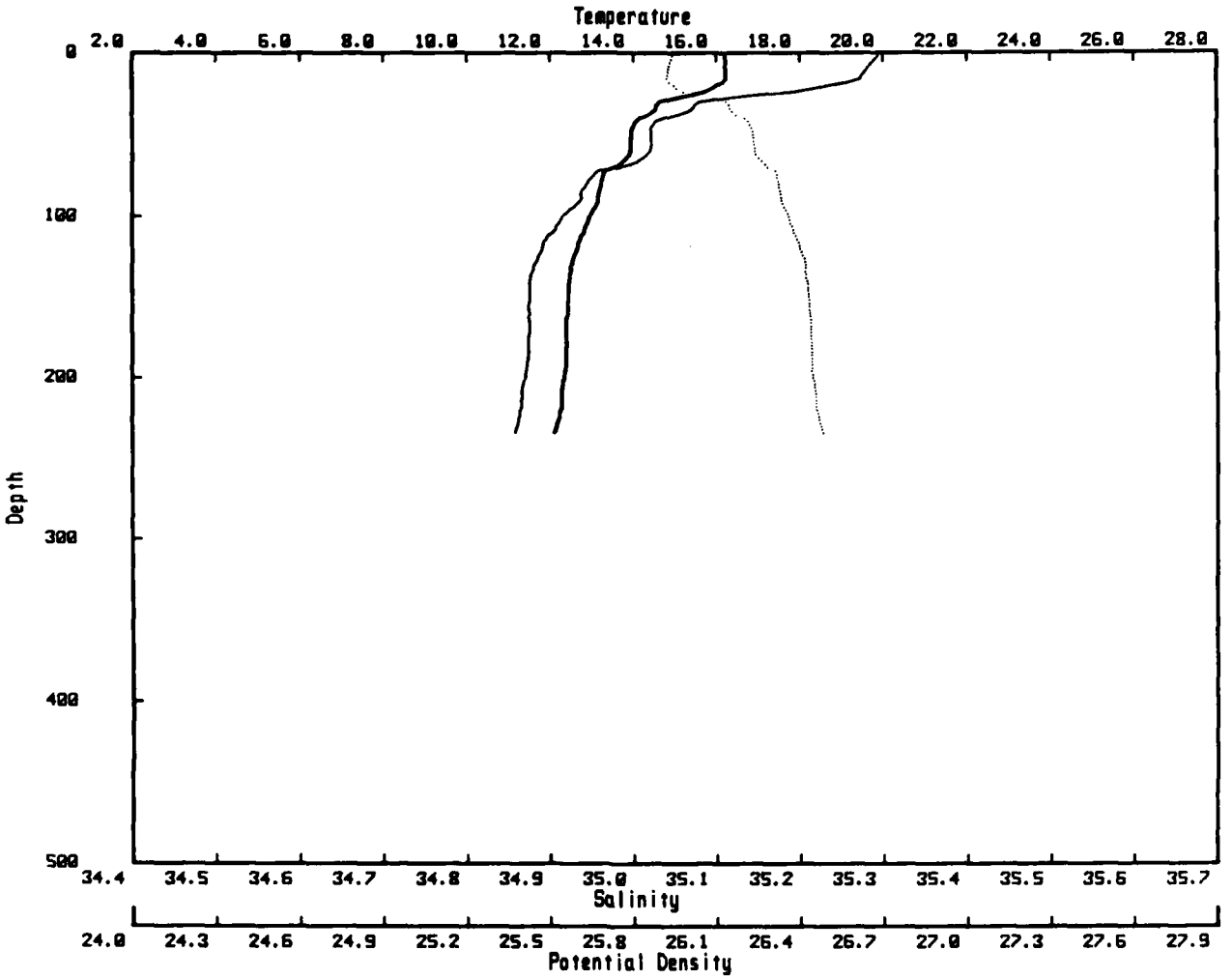
STATION PC7036 : 29 41.9 N 113 40.7 W 13/ 3/85 859Z 549/ 554m



Day: 72.36 SST: 15.7 Tdry: 15.8 Twet: 13.6 Wspd: 5.5 CTD #: 3
NG1-30
ANC 17 SEP 85 CH:WD,CD,LTMIN,LGMIN. POS:SHL/RAD.

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	15.560	35.161	25.989	100.0	13.217	34.946	26.328
10.0	15.563	35.150	25.980	120.0	13.092	34.934	26.345
20.0	15.062	35.123	26.072	140.0	12.956	34.922	26.364
30.0	14.629	35.095	26.145	160.0	12.795	34.908	26.385
40.0	14.468	35.081	26.169	180.0	12.650	34.896	26.405
50.0	13.765	35.009	26.263	200.0	12.586	34.890	26.414
60.0	13.549	34.987	26.291	300.0	12.266	34.859	26.455
70.0	13.398	34.969	26.308	400.0	11.977	34.839	26.497
80.0	13.326	34.958	26.315	500.0	11.654	34.818	26.544
90.0	13.275	34.952	26.321				

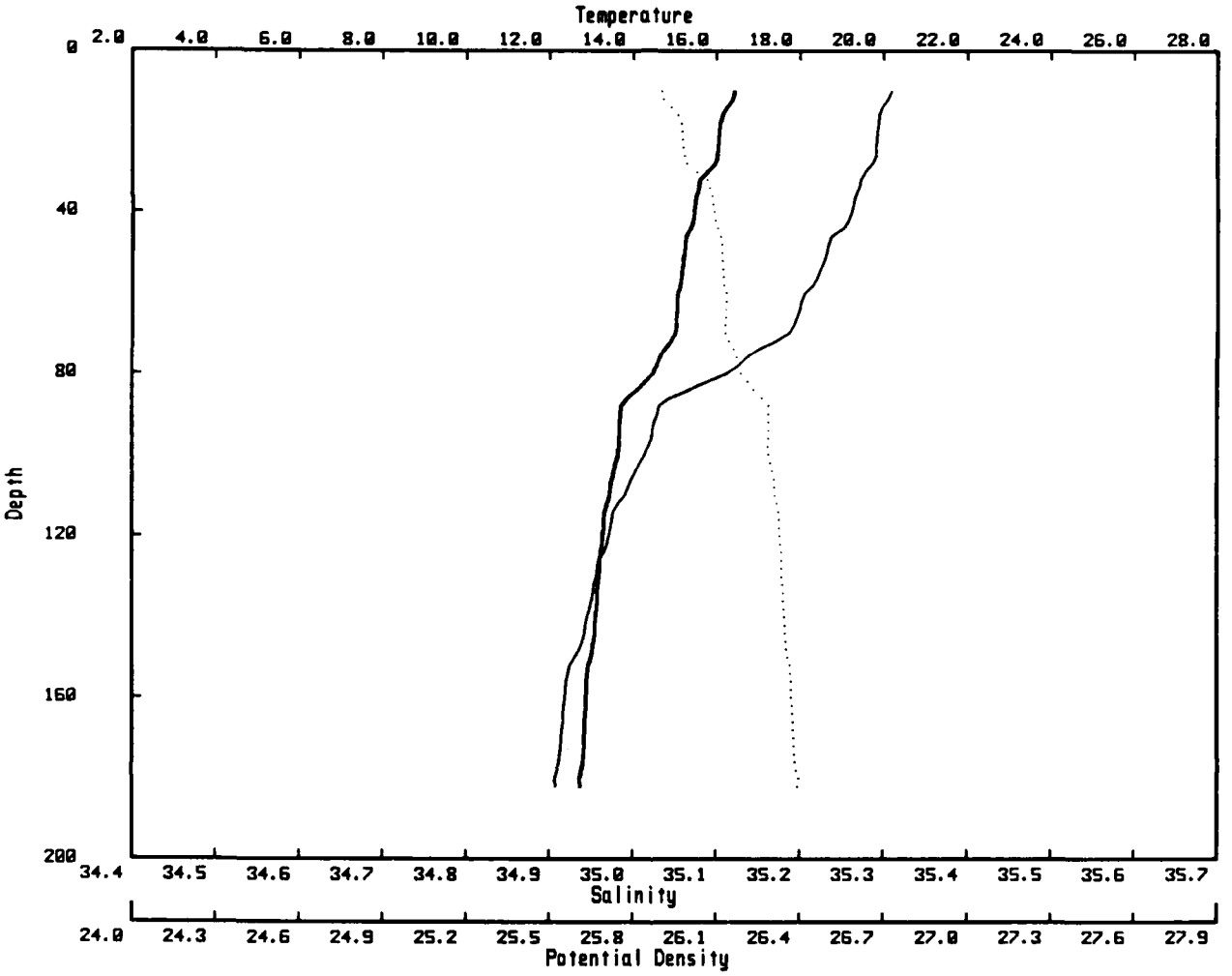
STATION PC7037 : 29 45.6 N 113 31.6 W 13/ 3/85 1032Z 234/ 239m



Day: 72.43 SST: 16.4 Tdry: 15.7 Twet: 13.9 Wspd: 13.2 CTD #: 3
NG1-31
ANC 17 SEP 85 CH:WD,CD,LTMIN,LGMIN. POS:SHL/RAD

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.213	35.294	25.943	80.0	13.224	34.944	26.325
10.0	16.232	35.281	25.928	90.0	13.149	34.936	26.334
20.0	15.995	35.235	25.948	100.0	12.942	34.915	26.360
30.0	14.628	35.080	26.134	120.0	12.642	34.890	26.401
40.0	14.151	35.037	26.203	140.0	12.457	34.875	26.426
50.0	13.959	35.022	26.232	160.0	12.412	34.875	26.435
60.0	13.926	35.020	26.238	180.0	12.380	34.874	26.441
70.0	13.560	34.983	26.286	200.0	12.338	34.870	26.447

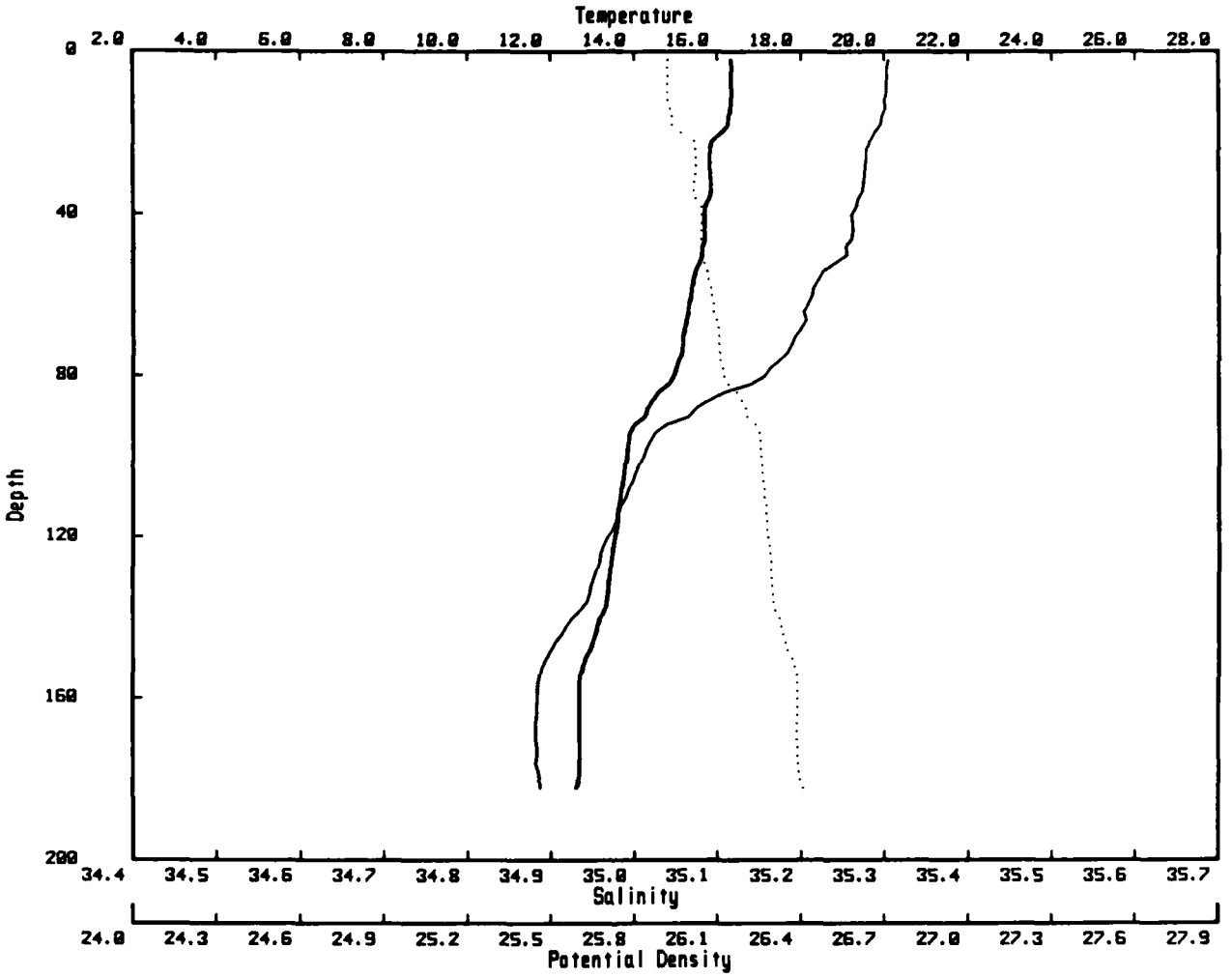
STATION PC7038 : 29 45.2 N 113 22.0 W 13/ 3/85 1146Z 181/ 186m



Day: 72.48 SST: 16.6 Tdry: 15.9 Twet: 13.7 Wspd: 12.9 CTD #: 3
NG1-32
ANC 17 SEP 85 CH:WD,CD,LTMIN,LGMIN. POS:SHL/RAD *** uptrace ***

PR	TE	SA	SGTH	PR	TE	SA	SGTH
10.0	16.435	35.309	25.903	80.0	14.489	35.113	26.191
20.0	16.064	35.293	25.977	90.0	13.718	35.030	26.290
30.0	15.781	35.278	26.030	100.0	13.663	35.015	26.290
40.0	15.459	35.262	26.091	120.0	13.305	34.972	26.331
50.0	15.227	35.232	26.120	140.0	13.120	34.946	26.349
60.0	15.066	35.206	26.136	160.0	12.898	34.919	26.373
70.0	15.015	35.187	26.133	180.0	12.727	34.907	26.399

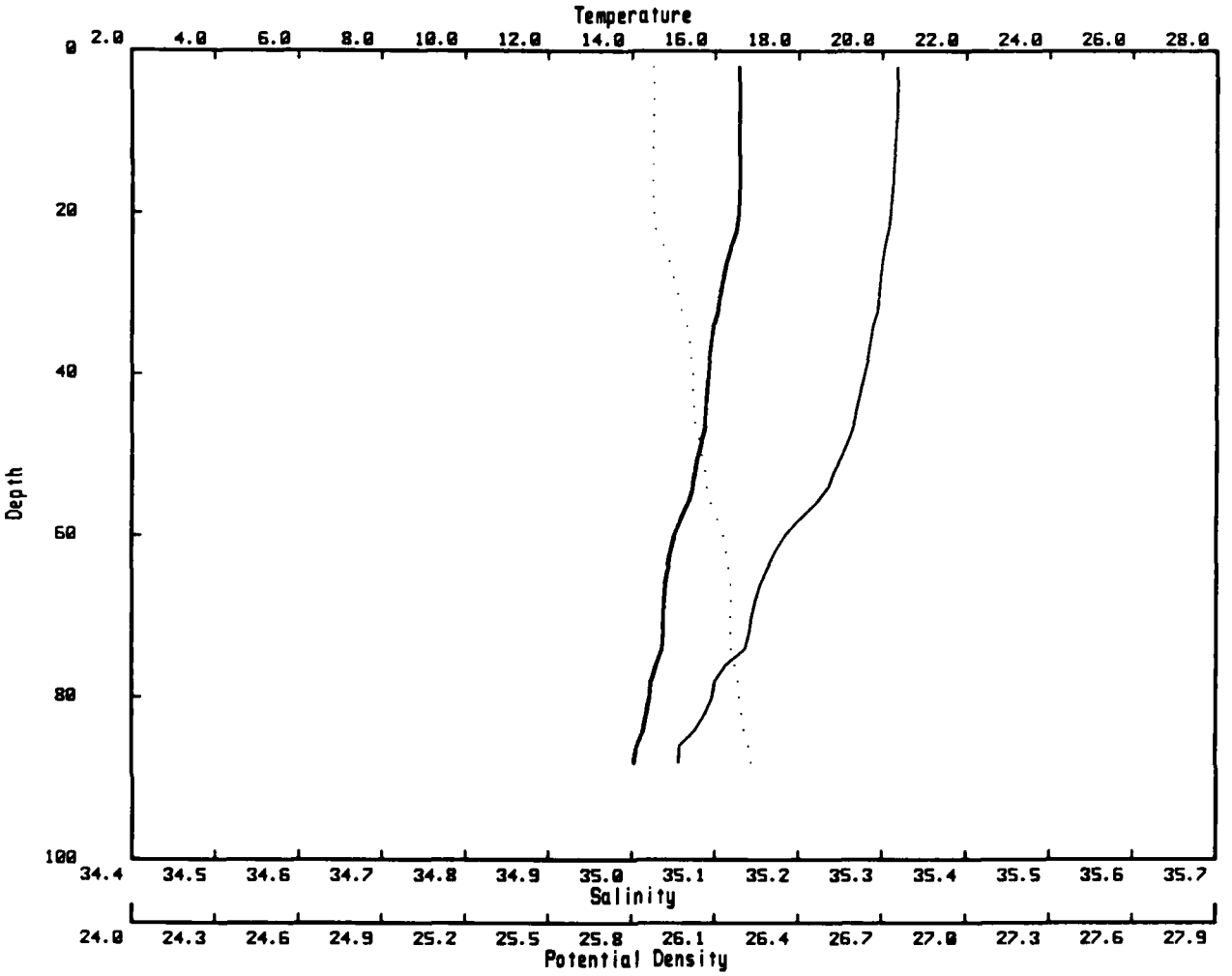
STATION PC7039 : 29 46.9 N 113 14.0 W 13/ 3/85 1249Z 182/ 187m



Day: 72.52 SST: 16.5 Tdry: 16.2 Twet: 14.2 Wspd: 14.3 CTD #: 3
NG1-33
ANC 17 SEP 85 CH:LTMIN,LGMIN. POS:SHL/RAD.

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.334	35.305	25.923	80.0	14.948	35.156	26.124
10.0	16.339	35.302	25.920	90.0	14.243	35.065	26.207
20.0	16.085	35.288	25.968	100.0	13.810	35.011	26.257
30.0	15.824	35.276	26.019	120.0	13.533	34.968	26.281
40.0	15.674	35.260	26.041	140.0	13.169	34.925	26.323
50.0	15.622	35.255	26.049	160.0	12.686	34.884	26.388
60.0	15.357	35.213	26.077	180.0	12.663	34.886	26.395
70.0	15.166	35.193	26.104				

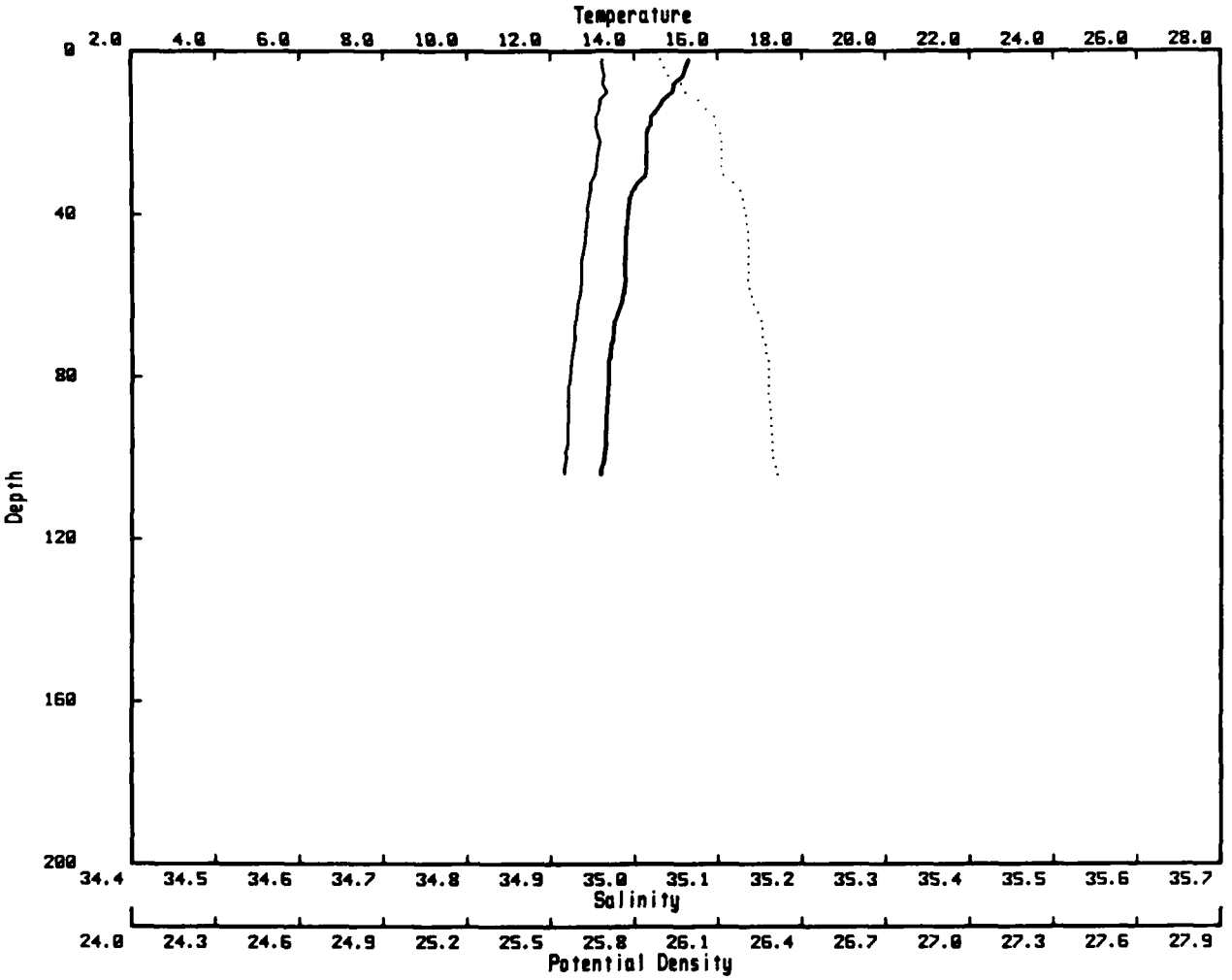
STATION PC7040 : 29 50.5 N 112 58.1 W 13/ 3/85 1431Z 87/ 92m



Day: 72.60 SST: 16.9 Tdry: 16.2 Twet: 14.4 Wspd: 14.6 CTD #: 3
NG1-34 NOTE SEA TEMP. IS 16.35 NOT 16.55
ANC 17 SEP 85 CH:WD,CD,LTMIN,LGMIN. POS:SHL/?.

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.572	35.318	25.877	50.0	15.595	35.252	26.053
10.0	16.575	35.316	25.875	60.0	15.021	35.184	26.129
20.0	16.552	35.309	25.876	70.0	14.755	35.144	26.157
30.0	16.129	35.296	25.964	80.0	14.444	35.097	26.188
40.0	15.838	35.279	26.018				

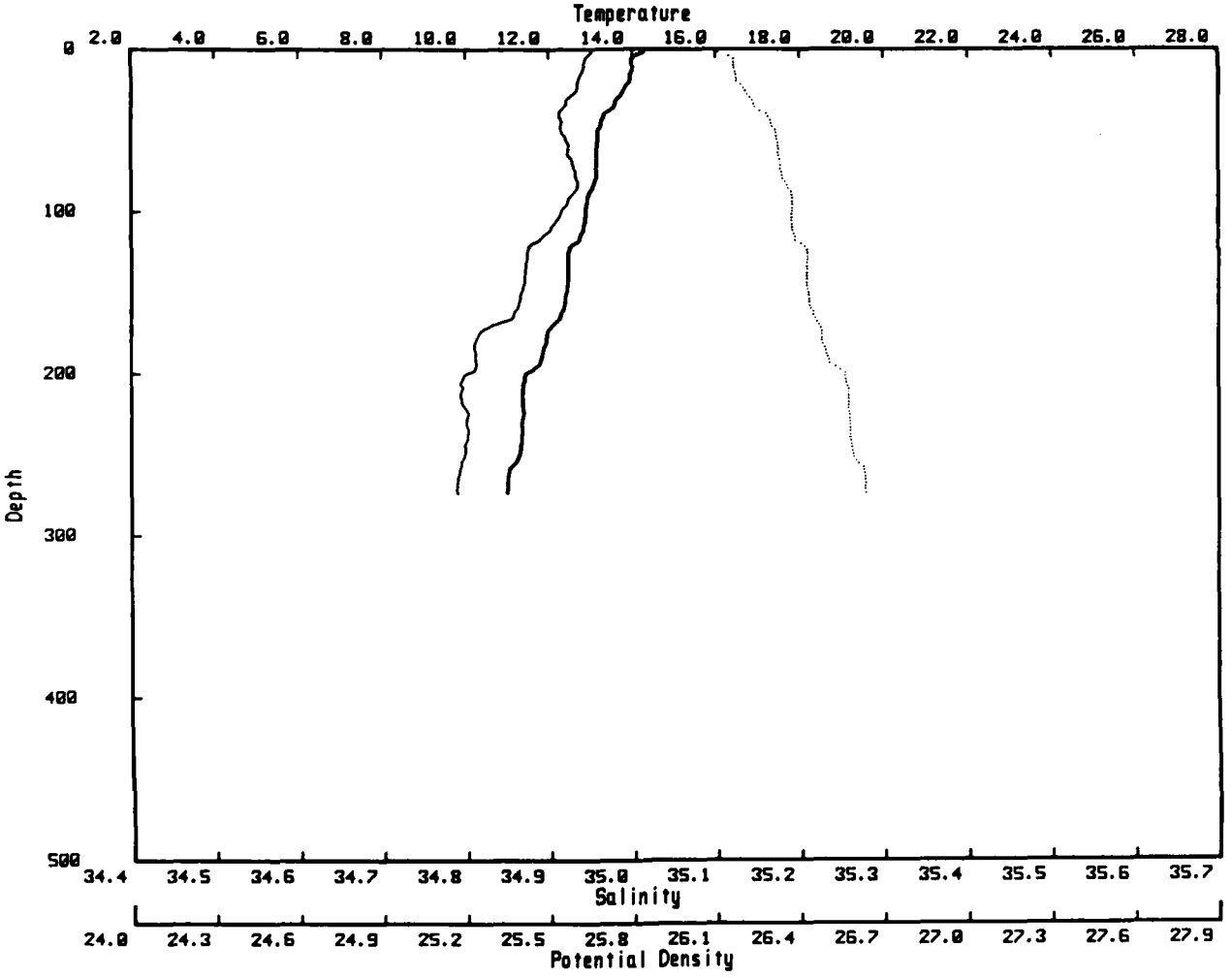
STATION PC7041 : 28 40.5 N 112 16.3 W 14/ 3/85 1115Z 102/ 107m



Day: 73.46 SST: 15.3 Tdry: 15.4 Twet: 14.3 Wspd: 4.0 CTD #: 3
SILL-1
ANC 17 SEP 85 CH:WD,CD,LTMIN,LGMIN,T. POS:SAIL

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	15.307	34.962	25.893	60.0	13.701	34.934	26.219
10.0	14.914	34.968	25.985	70.0	13.491	34.928	26.258
20.0	14.299	34.956	26.109	80.0	13.368	34.922	26.279
30.0	14.244	34.952	26.118	90.0	13.313	34.920	26.289
40.0	13.830	34.944	26.199	100.0	13.269	34.918	26.296
50.0	13.765	34.937	26.207				

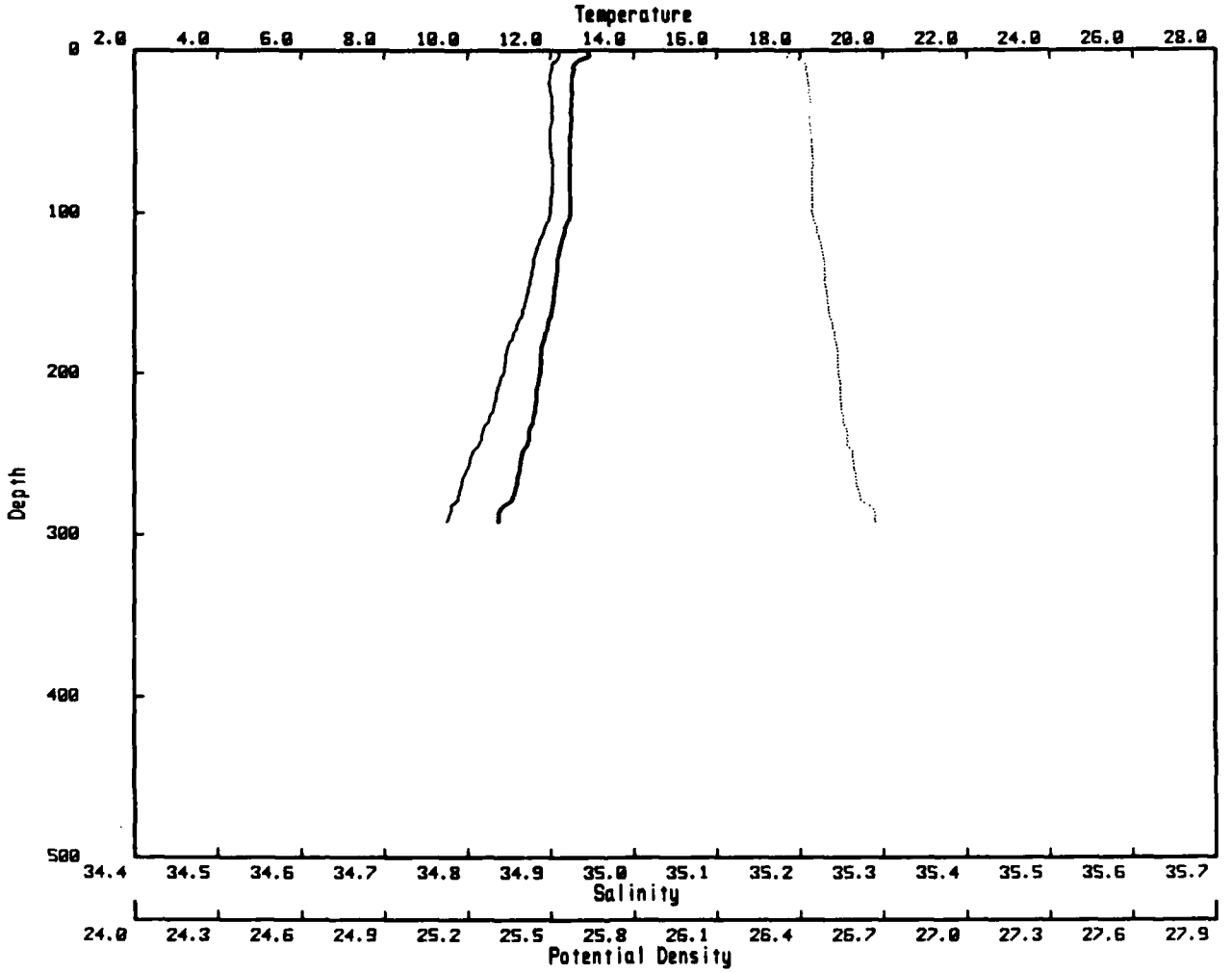
STATION PC7042 : 28 39.6 N 112 22.5 W 14/ 3/85 1213Z 273/ 278m



Day: 73.51 SST: 14.6 Tdry: 14.9 Twet: 13.4 Wspd: 1.0 CTD #: 3
SILL-2
ANC 17 SEP 85 CH:WD,CD,LTMIN,LGMIN,T. POS:SAIL

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	14.284	34.952	26.108	80.0	13.107	34.932	26.339
10.0	13.989	34.942	26.163	90.0	12.933	34.926	26.370
20.0	13.923	34.934	26.171	100.0	12.877	34.914	26.372
30.0	13.639	34.923	26.222	120.0	12.580	34.879	26.404
40.0	13.317	34.912	26.280	140.0	12.447	34.870	26.424
50.0	13.171	34.914	26.312	160.0	12.335	34.861	26.439
60.0	13.148	34.923	26.323	180.0	11.932	34.812	26.479
70.0	13.133	34.928	26.331	200.0	11.433	34.800	26.564

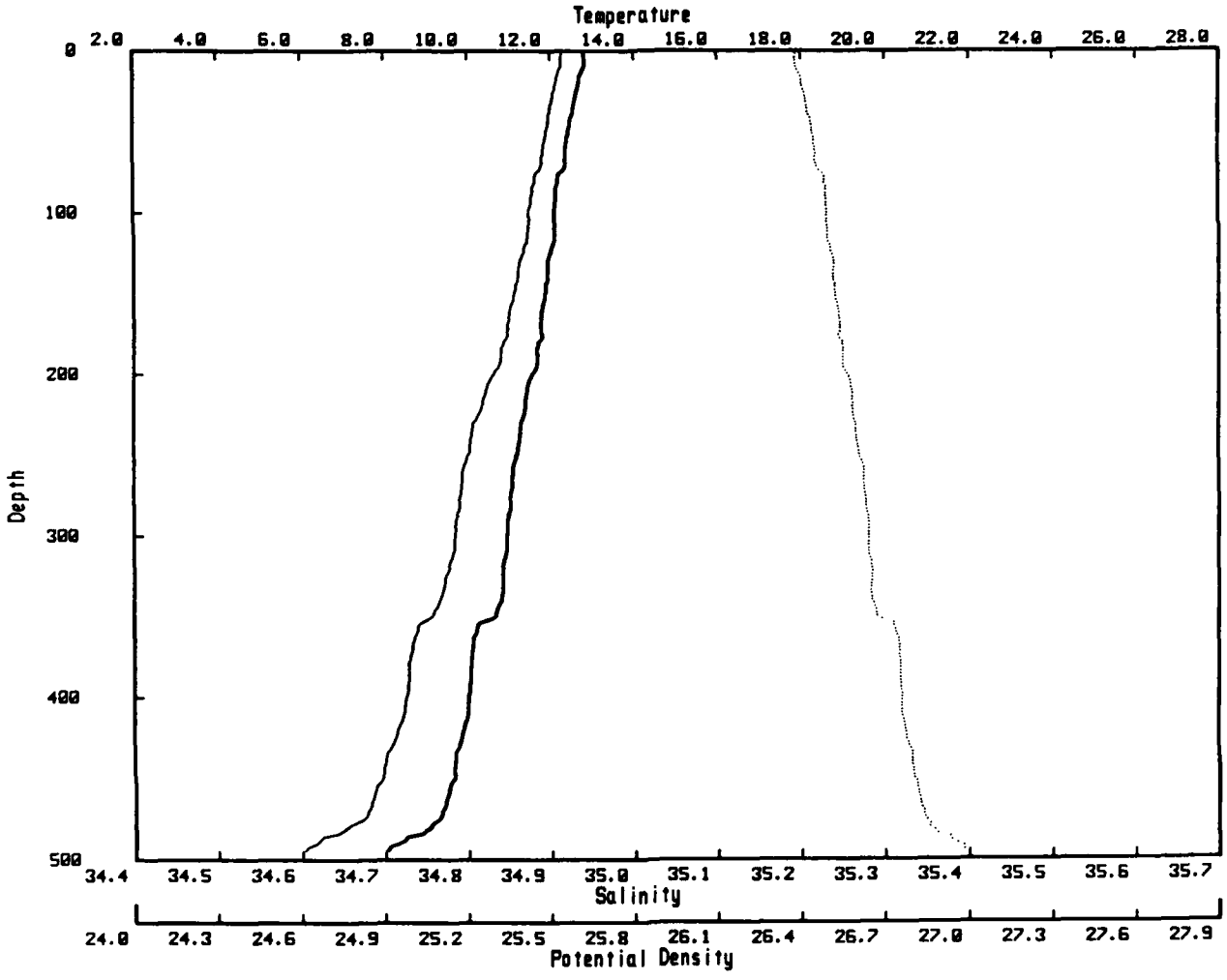
STATION PC7043 : 28 38.1 N 112 28.4 W 14/ 3/85 1310Z 291/ 296m



Day: 73.55 SST: 13.6 Tdry: 14.2 Twet: 13.4 Wspd: 5.0 CTD #: 3
SILL-3
ANC 17 SEP 85 CH:WD,CD,LTMIN,LGMIN. POS:SAIL

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	12.904	34.910	26.361	80.0	12.462	34.902	26.444
10.0	12.549	34.902	26.425	90.0	12.457	34.900	26.444
20.0	12.508	34.898	26.431	100.0	12.454	34.899	26.444
30.0	12.484	34.901	26.438	120.0	12.228	34.884	26.477
40.0	12.497	34.902	26.436	140.0	12.140	34.877	26.489
50.0	12.469	34.899	26.440	160.0	12.023	34.866	26.503
60.0	12.452	34.899	26.443	180.0	11.817	34.851	26.531
70.0	12.455	34.902	26.445	200.0	11.741	34.843	26.540

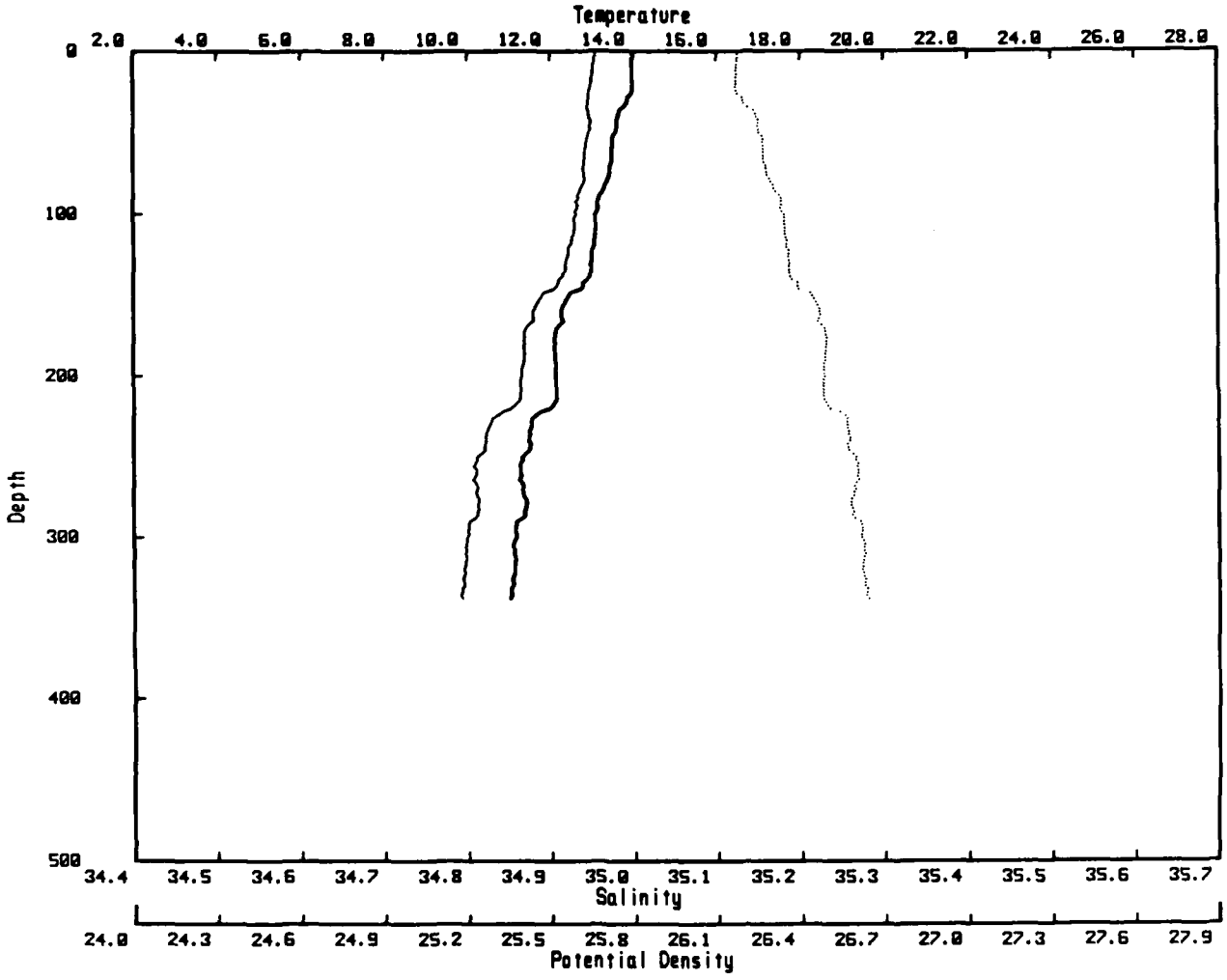
STATION PC7044 : 28 36.6 N 112 34.6 W 14/ 3/85 1406Z 497/ 502m



Day: 73.59 SST: 13.0 Tdry: 14.1 Twet: 13.4 Wspd: 7.0 CTD #: 3
SILL-4
ANC 17 SEP 85 CH:WD,CD,T. POS:OK

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	12.822	34.914	26.380	90.0	12.131	34.877	26.489
10.0	12.806	34.912	26.382	100.0	12.101	34.874	26.493
20.0	12.675	34.906	26.404	120.0	12.032	34.868	26.502
30.0	12.587	34.902	26.418	140.0	11.928	34.860	26.516
40.0	12.513	34.898	26.430	160.0	11.793	34.851	26.535
50.0	12.438	34.895	26.443	180.0	11.699	34.843	26.547
60.0	12.375	34.892	26.453	200.0	11.552	34.831	26.566
70.0	12.353	34.889	26.455	300.0	10.947	34.785	26.644
80.0	12.165	34.881	26.486	400.0	10.020	34.726	26.762

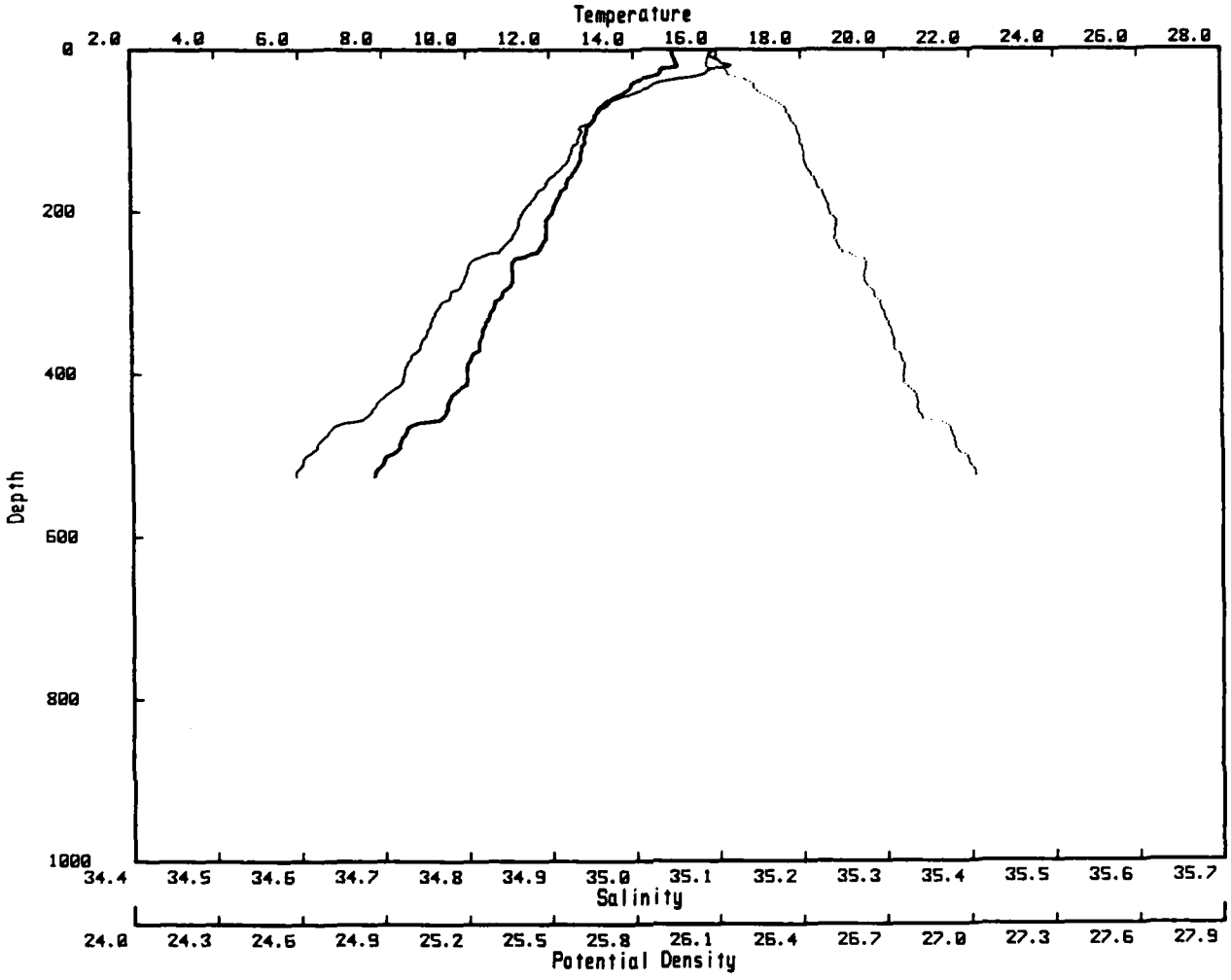
STATION PC7045 : 28 38.4 N 112 39.1 W 14/ 3/85 1520Z 337/ 342m



Day: 73.63 SST: 14.2 Tdry: 14.7 Twet: 13.1 Wspd: 13.4 CTD #: 3
SILL-5
ANC 17 SEP 85 CH:LTMIN,LGMIN,WD,CD. POS:SAIL

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	13.970	34.954	26.176	90.0	13.150	34.933	26.332
10.0	13.978	34.952	26.173	100.0	13.074	34.931	26.346
20.0	13.982	34.949	26.170	120.0	13.023	34.921	26.349
30.0	13.852	34.945	26.195	140.0	12.877	34.910	26.370
40.0	13.627	34.946	26.243	160.0	12.252	34.878	26.469
50.0	13.574	34.946	26.254	180.0	12.094	34.868	26.492
60.0	13.490	34.942	26.268	200.0	12.112	34.865	26.487
70.0	13.445	34.940	26.276	300.0	11.156	34.799	26.617
80.0	13.358	34.940	26.294				

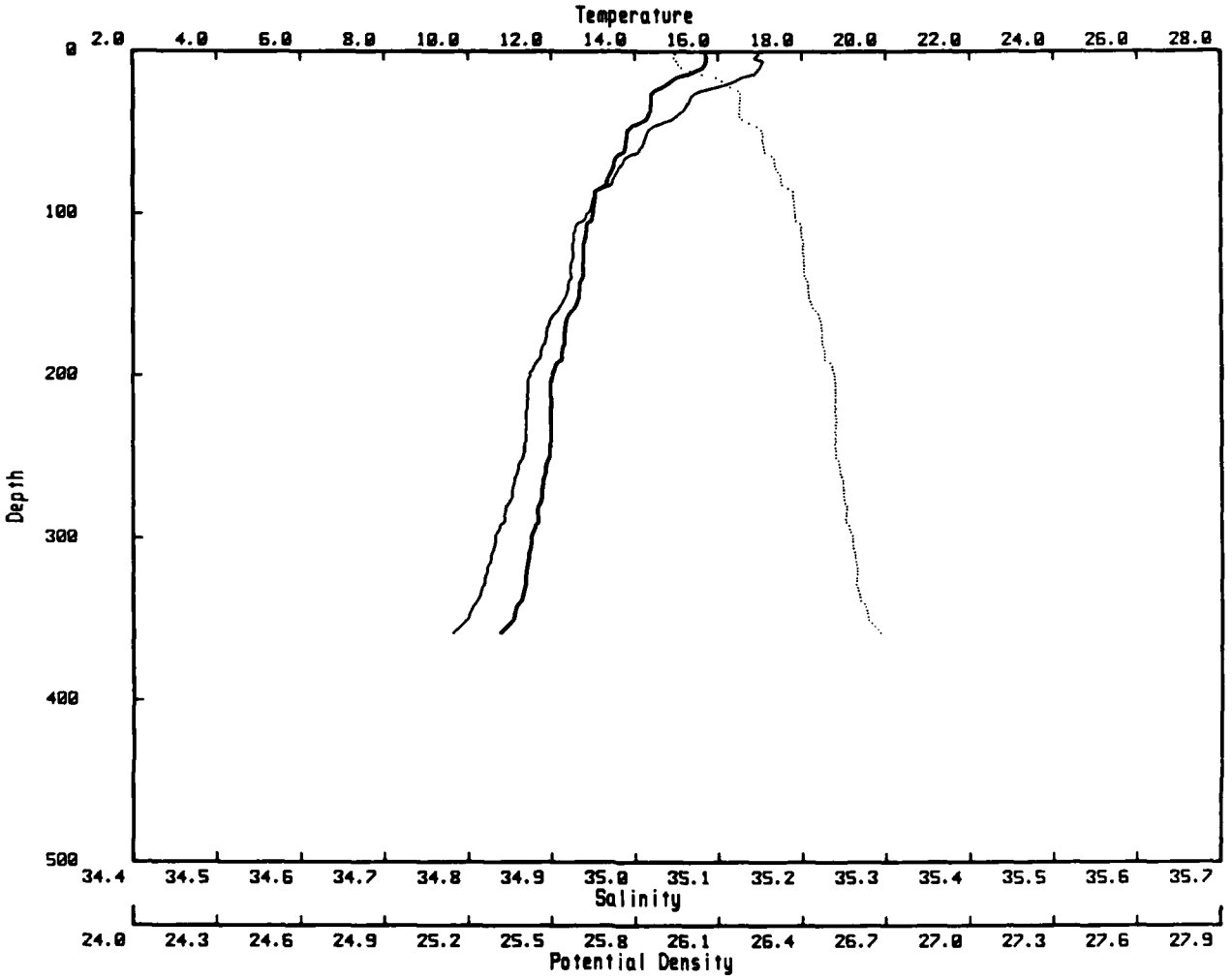
STATION PC7046 : 28 38.4 N 112 40.9 W 14/ 3/85 1615Z 527/ 532m



Day: 73.67 SST: 14.9 Tdry: 14.6 Twet: 13.5 Wspd: 11.1 CTD #: 3
SILL-6
ANC 17 SEP 85 CH:LGD,LGMIN,LTMIN,WD,CD,T. POS:SAIL

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	14.947	35.094	26.074	100.0	12.895	34.939	26.388
10.0	14.986	35.098	26.069	120.0	12.762	34.927	26.406
20.0	15.069	35.118	26.066	140.0	12.698	34.920	26.413
30.0	14.619	35.085	26.140	160.0	12.434	34.899	26.450
40.0	14.054	35.034	26.221	180.0	12.222	34.883	26.479
50.0	13.861	35.012	26.245	200.0	12.049	34.867	26.500
60.0	13.515	34.982	26.294	300.0	10.841	34.781	26.659
70.0	13.229	34.968	26.342	400.0	10.001	34.725	26.765
80.0	13.108	34.957	26.358	500.0	8.110	34.607	26.977
90.0	13.011	34.949	26.372				

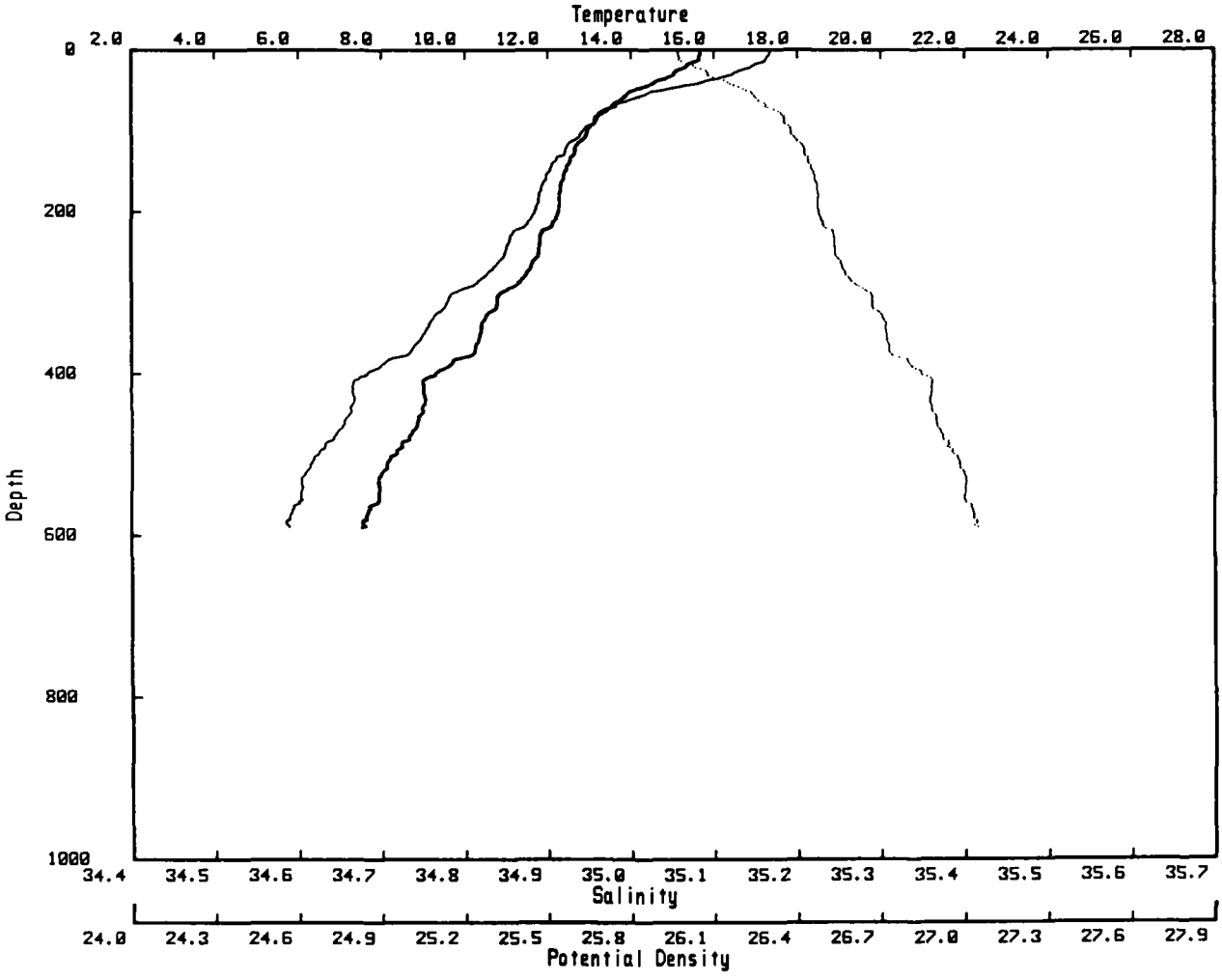
STATION PC7047 : 28 37.2 N 112 44.1 W 14/ 3/85 1742Z 358/ 363m



Day: 73.73 SST: 15.9 Tdry: 14.7 Twet: 13.7 Wspd: 11.3 CTD #: 3
SILL-7
ANC 17 SEP 85 CH:WD,CD,LTMIN,LGMIN,T. POS:SAIL

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	15.711	35.149	25.946	90.0	13.029	34.950	26.369
10.0	15.626	35.150	25.966	100.0	12.976	34.942	26.374
20.0	14.764	35.111	26.128	120.0	12.765	34.925	26.403
30.0	14.372	35.065	26.177	140.0	12.713	34.923	26.413
40.0	14.309	35.049	26.179	160.0	12.480	34.907	26.447
50.0	13.806	35.014	26.258	180.0	12.294	34.891	26.471
60.0	13.747	35.005	26.264	200.0	12.014	34.874	26.512
70.0	13.481	34.983	26.302	300.0	11.503	34.832	26.578
80.0	13.330	34.973	26.326				

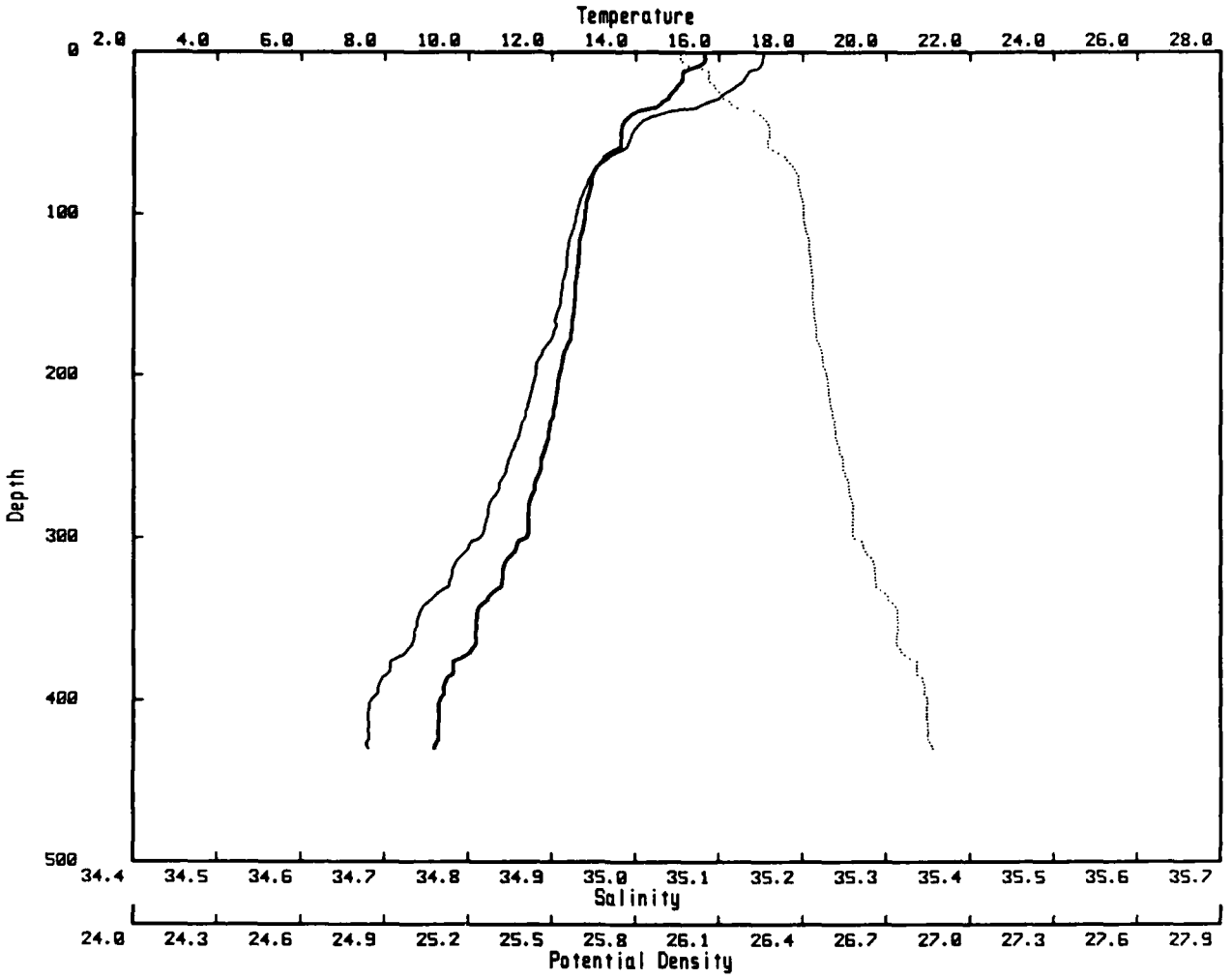
STATION PC7048 : 28 37.4 N 112 42.8 W 14/ 3/85 1821Z 589/ 594m



Day: 73.76 SST: 15.9 Tdry: 14.7 Twet: 14.0 Wspd: 11.6 CTD #: 3
SILL-8
ANC 17 SEP 85 CH:LTMIN,LGMIN,WD,CD. POS:SAIL

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	15.660	35.168	25.972	100.0	12.959	34.942	26.377
10.0	15.631	35.163	25.975	120.0	12.654	34.922	26.423
20.0	15.348	35.146	26.026	140.0	12.500	34.905	26.441
30.0	15.034	35.122	26.077	160.0	12.364	34.897	26.462
40.0	14.575	35.086	26.150	180.0	12.271	34.889	26.474
50.0	14.083	35.036	26.217	200.0	12.237	34.883	26.476
60.0	13.799	35.005	26.253	300.0	10.839	34.784	26.662
70.0	13.560	34.983	26.286	400.0	9.299	34.682	26.848
80.0	13.206	34.965	26.345	500.0	8.312	34.623	26.959
90.0	13.129	34.956	26.354				

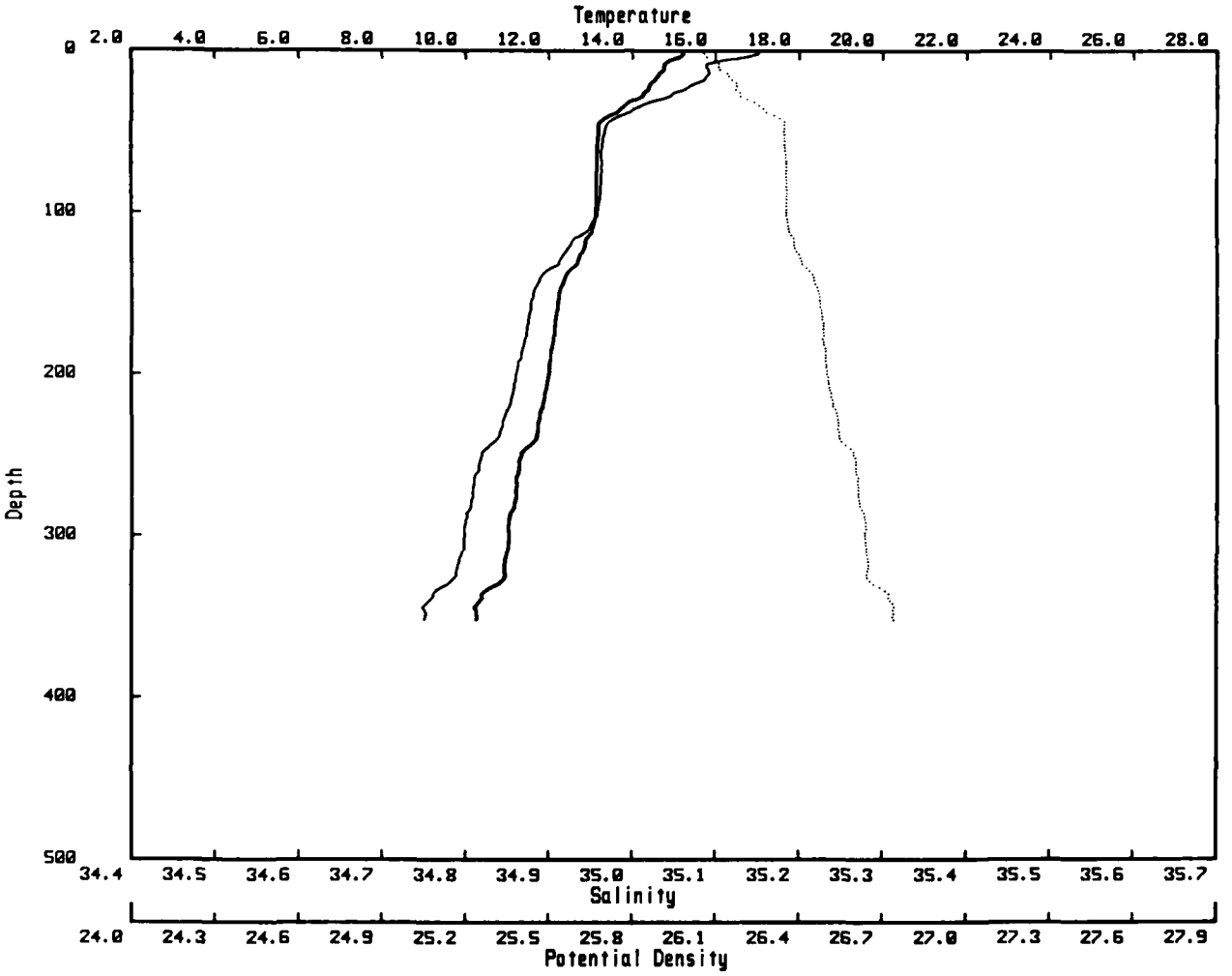
STATION PC7049 : 28 34.3 N 112 41.8 W 14/ 3/85 1924Z 429/ 434m



Day: 73.80 SST: 15.9 Tdry: 14.8 Twet: 14.0 Wspd: 8.3 CTD #: 3
SILL-9
ANC 17 SEP 85 CH:WD,CD. POS:OK.

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	15.653	35.153	25.962	90.0	12.832	34.933	26.395
10.0	15.288	35.146	26.039	100.0	12.779	34.929	26.403
20.0	15.015	35.122	26.081	120.0	12.644	34.919	26.423
30.0	14.639	35.088	26.138	140.0	12.563	34.913	26.435
40.0	13.816	35.017	26.258	160.0	12.512	34.906	26.440
50.0	13.628	34.995	26.281	180.0	12.376	34.895	26.458
60.0	13.528	34.985	26.294	200.0	12.163	34.880	26.488
70.0	13.065	34.954	26.364	300.0	11.375	34.813	26.587
80.0	12.930	34.942	26.383	400.0	9.312	34.683	26.847

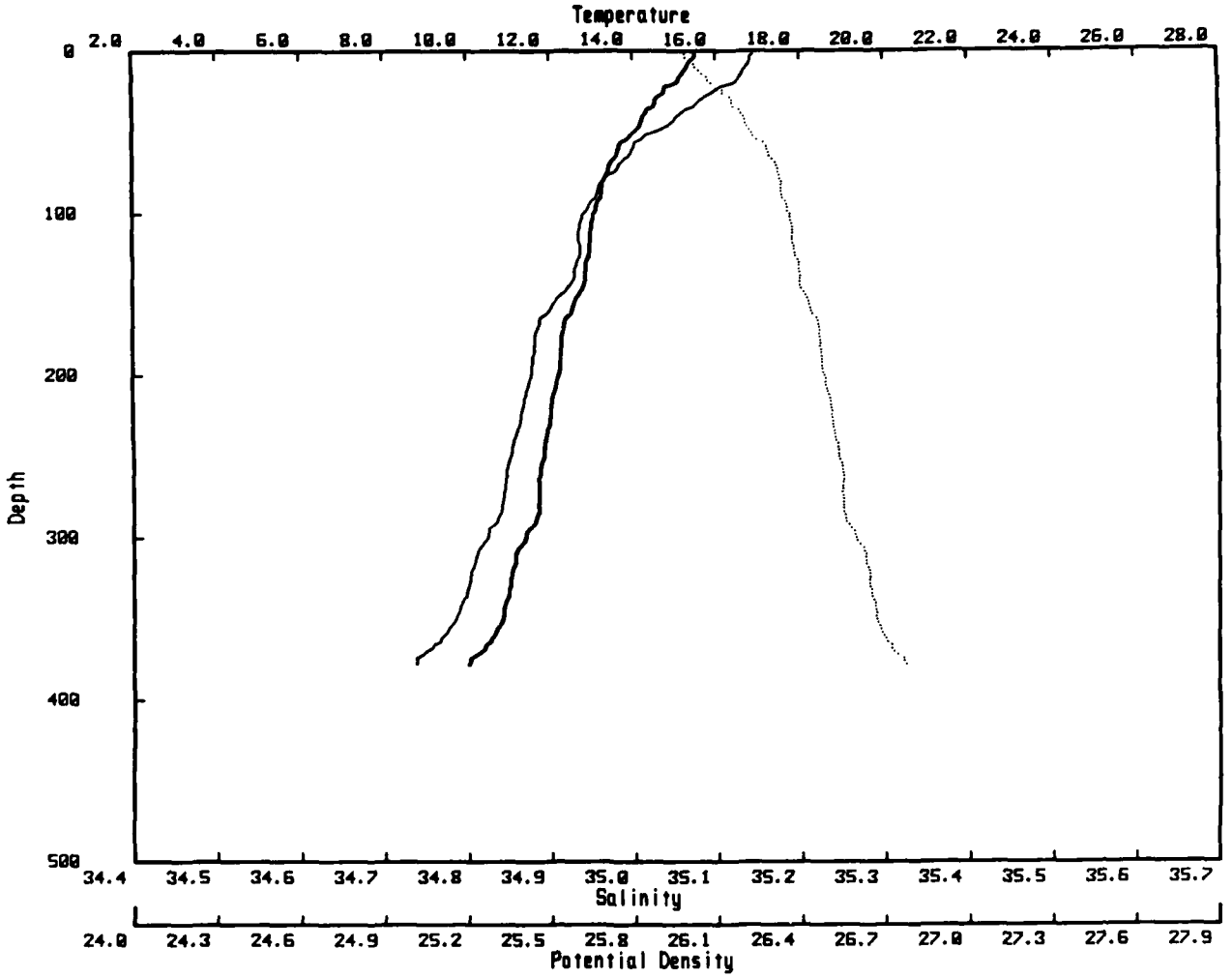
STATION PC7050 : 28 30.5 N 112 39.6 W 14/ 3/85 2029Z 351/ 356m



Day: 73.85 SST: 15.2 Tdry: 15.6 Twet: 14.3 Wspd: 1.1 CTD #: 3
SILL-10
ANC 17 SEP 85 CH:WD,CD. POS:OK

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	15.220	35.152	26.058	90.0	13.138	34.961	26.356
10.0	14.760	35.088	26.111	100.0	13.131	34.958	26.355
20.0	14.437	35.077	26.172	120.0	12.868	34.926	26.384
30.0	14.097	35.034	26.212	140.0	12.383	34.890	26.452
40.0	13.446	34.985	26.310	160.0	12.194	34.878	26.480
50.0	13.195	34.967	26.348	180.0	12.112	34.871	26.491
60.0	13.168	34.964	26.351	200.0	12.008	34.861	26.503
70.0	13.151	34.964	26.355	300.0	11.037	34.799	26.638
80.0	13.143	34.963	26.356				

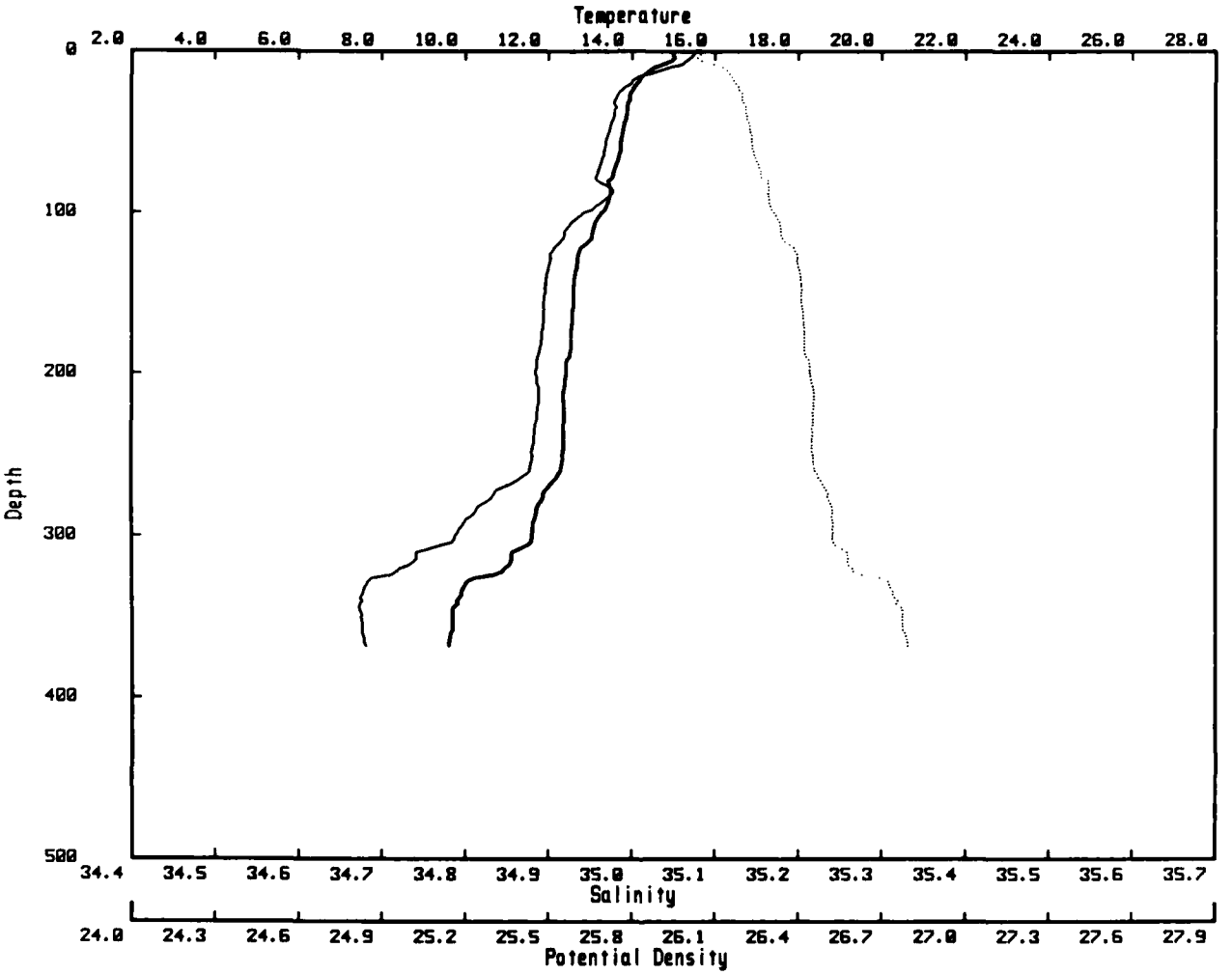
STATION PC7051 : 28 27.9 N 112 38.7 W 14/ 3/85 2137Z 378/ 383m



Day: 73.89 SST: 15.4 Tdry: 15.6 Twet: 13.8 Wspd: 8.4 CTD #: 3
PC7051, SILL-11
ANC 17 SEP 85 CH:WD,CD. POS:OK

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	15.506	35.145	25.989	90.0	13.212	34.955	26.336
10.0	15.308	35.136	26.027	100.0	13.026	34.939	26.362
20.0	15.009	35.120	26.081	120.0	12.947	34.937	26.376
30.0	14.528	35.081	26.156	140.0	12.820	34.927	26.395
40.0	14.237	35.052	26.196	160.0	12.503	34.898	26.435
50.0	13.985	35.021	26.226	180.0	12.259	34.881	26.470
60.0	13.635	34.999	26.283	200.0	12.175	34.876	26.483
70.0	13.414	34.982	26.315	300.0	11.371	34.823	26.596
80.0	13.259	34.961	26.331				

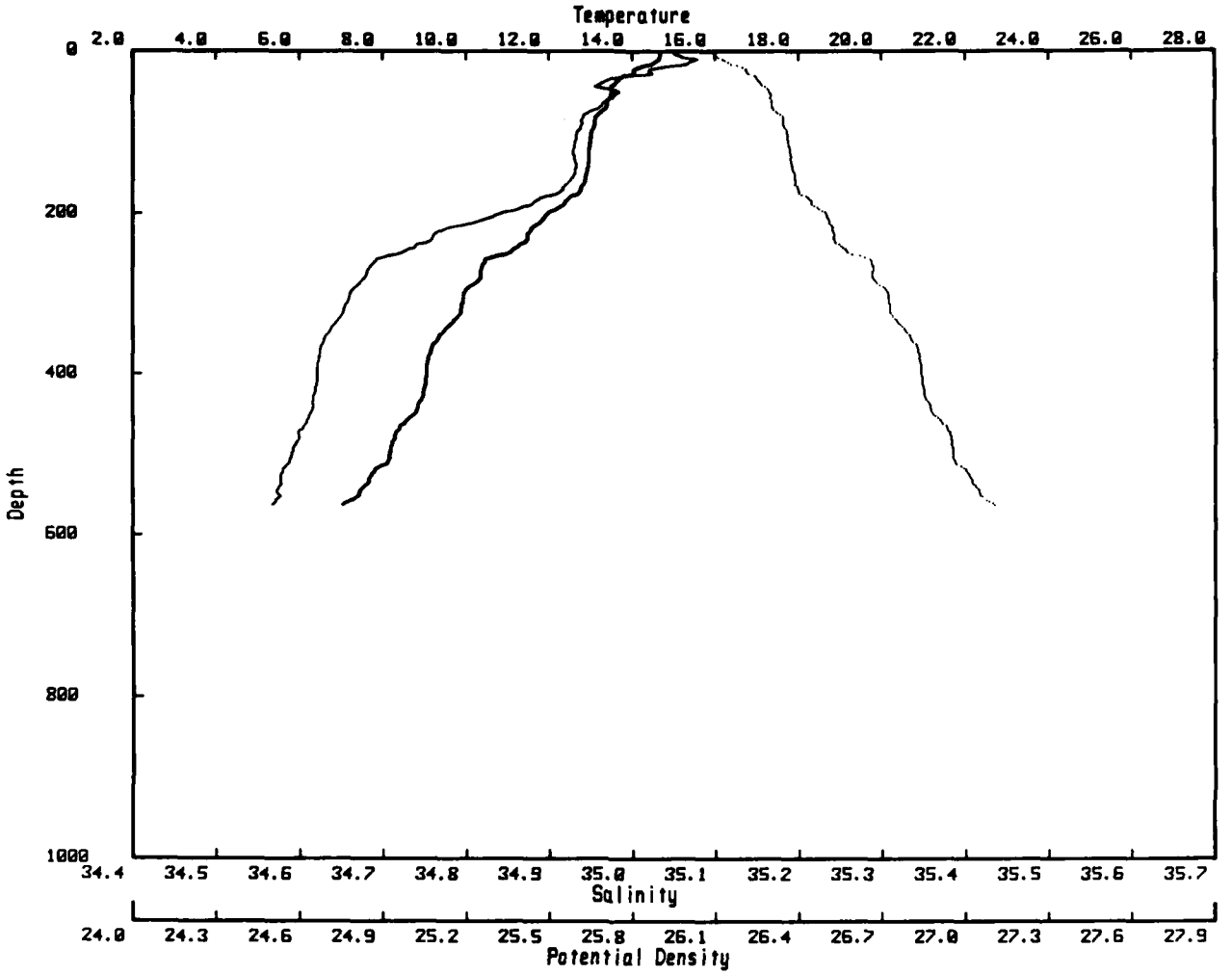
STATION PC7052 : 28 26.8 N 112 38.6 W 14/ 3/85 2237Z 367/ 372m



Day: 73.93 SST: 15.3 Tdry: 16.0 Twet: 13.8 Wspd: 5.8 CTD #: 3
SILL-12.
ANC 17 SEP 85 CH:WD,CD. POS:OK

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	14.998	35.075	26.048	90.0	13.477	34.972	26.295
10.0	14.530	35.045	26.127	100.0	13.271	34.942	26.314
20.0	14.131	35.000	26.178	120.0	12.881	34.911	26.370
30.0	13.959	34.980	26.199	140.0	12.628	34.898	26.410
40.0	13.877	34.979	26.216	160.0	12.590	34.895	26.416
50.0	13.790	34.973	26.230	180.0	12.545	34.891	26.422
60.0	13.742	34.968	26.236	200.0	12.424	34.885	26.442
70.0	13.622	34.963	26.258	300.0	11.607	34.788	26.525
80.0	13.440	34.959	26.292				

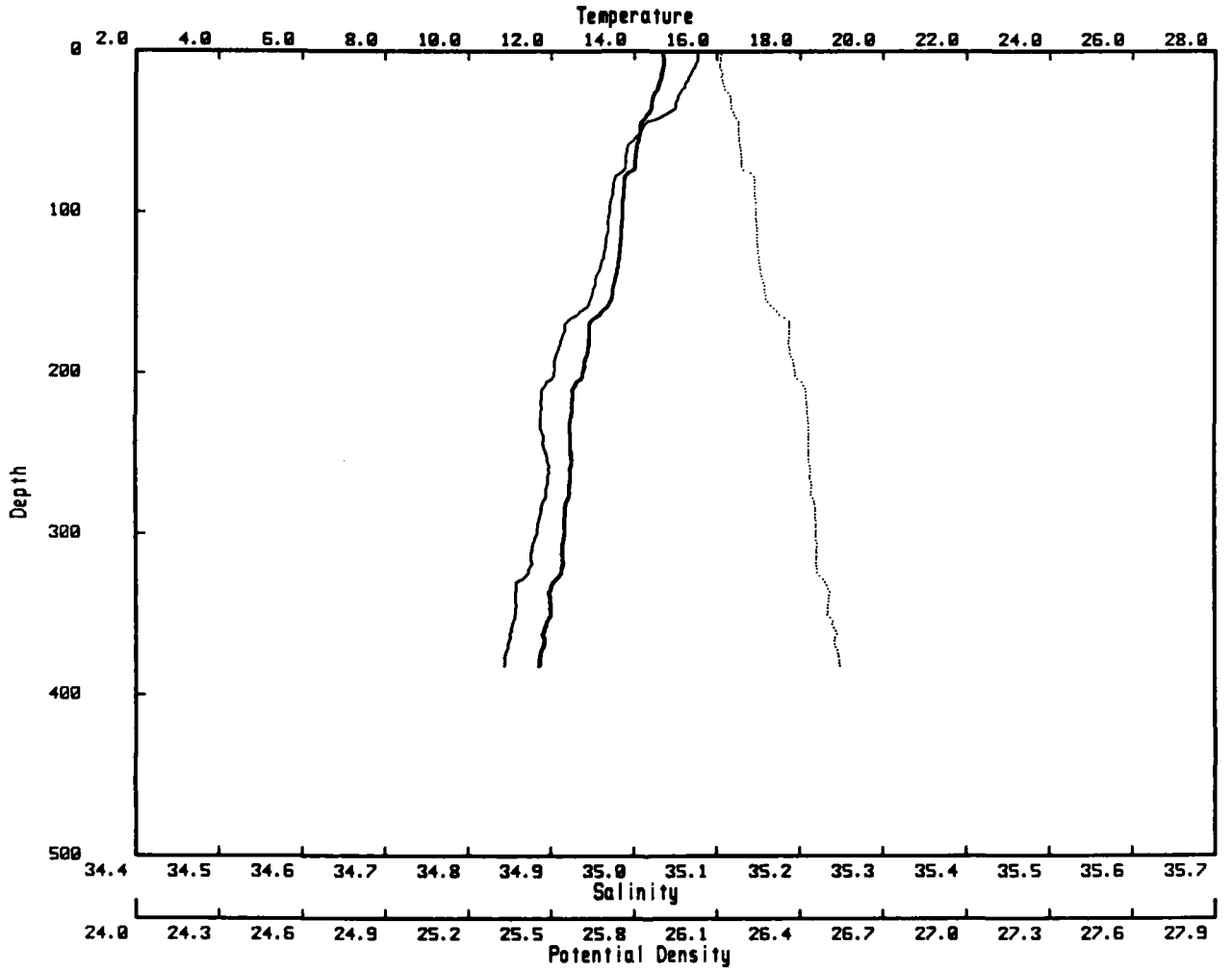
STATION PC7053 : 28 17.9 N 112 43.4 W 14/ 3/85 124Z 560/ 565m



Day: 74.05 SST: 14.8 Tdry: 16.7 Twet: 12.7 Wspd: 17.3 CTD #: 3
SILL13;AFTER NAN'S SILL12.SATFIX BAD,PDRPOS74.
ANC 25 SEP 85 CH:WD,CD. POS:OK

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	14.689	35.052	26.098	100.0	13.009	34.933	26.360
10.0	14.651	35.079	26.127	120.0	12.959	34.929	26.368
20.0	14.159	35.035	26.199	140.0	12.929	34.932	26.377
30.0	13.805	34.995	26.243	160.0	12.844	34.924	26.388
40.0	13.587	34.962	26.263	180.0	12.467	34.890	26.437
50.0	13.520	34.984	26.294	200.0	11.937	34.840	26.501
60.0	13.413	34.969	26.305	300.0	9.936	34.661	26.724
70.0	13.357	34.959	26.309	400.0	9.049	34.621	26.841
80.0	13.117	34.941	26.344	500.0	8.160	34.591	26.957
90.0	13.095	34.939	26.347				

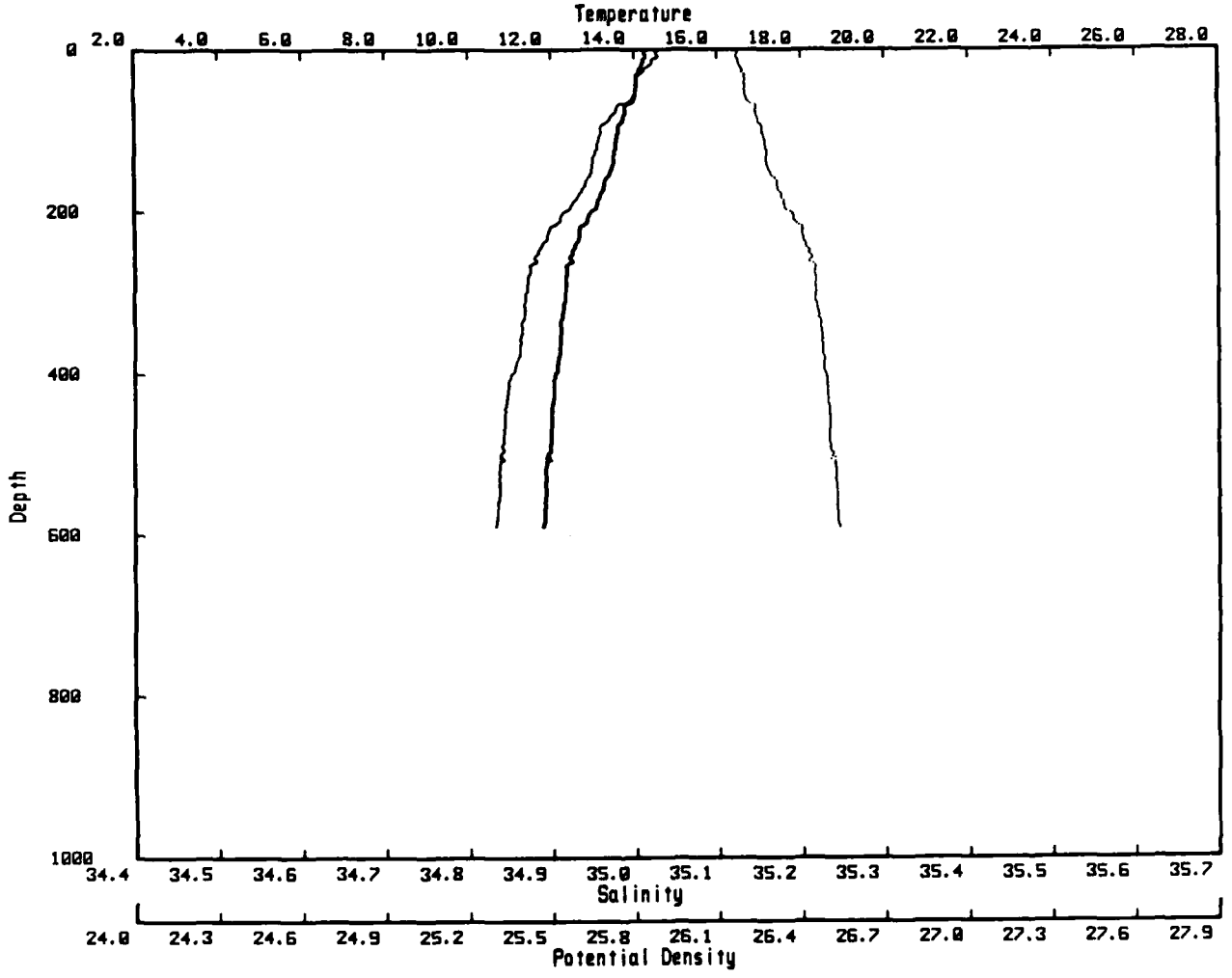
STATION PC7054 : 28 24.0 N 112 37.8 W 14/ 3/85 312Z 378/ 383m



Day: 74.13 SST: 14.9 Tdry: 16.6 Twet: 12.9 Wspd: 16.3 CTD #: 3
SILL-14.SATFIX BAD.OMEGA POS. RADAR 320AT10MI SW SAN LORENCO.
28 SEP 85 NAB CH:WD,CD POS:OME

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	14.705	35.077	26.114	90.0	13.755	34.974	26.239
10.0	14.703	35.073	26.111	100.0	13.729	34.971	26.243
20.0	14.612	35.062	26.123	120.0	13.684	34.966	26.249
30.0	14.452	35.053	26.151	140.0	13.575	34.955	26.263
40.0	14.325	35.036	26.165	160.0	13.315	34.942	26.307
50.0	14.160	35.009	26.180	180.0	12.928	34.912	26.363
60.0	14.071	34.992	26.186	200.0	12.785	34.904	26.385
70.0	14.041	34.990	26.191	300.0	12.336	34.884	26.461
80.0	13.773	34.977	26.237				

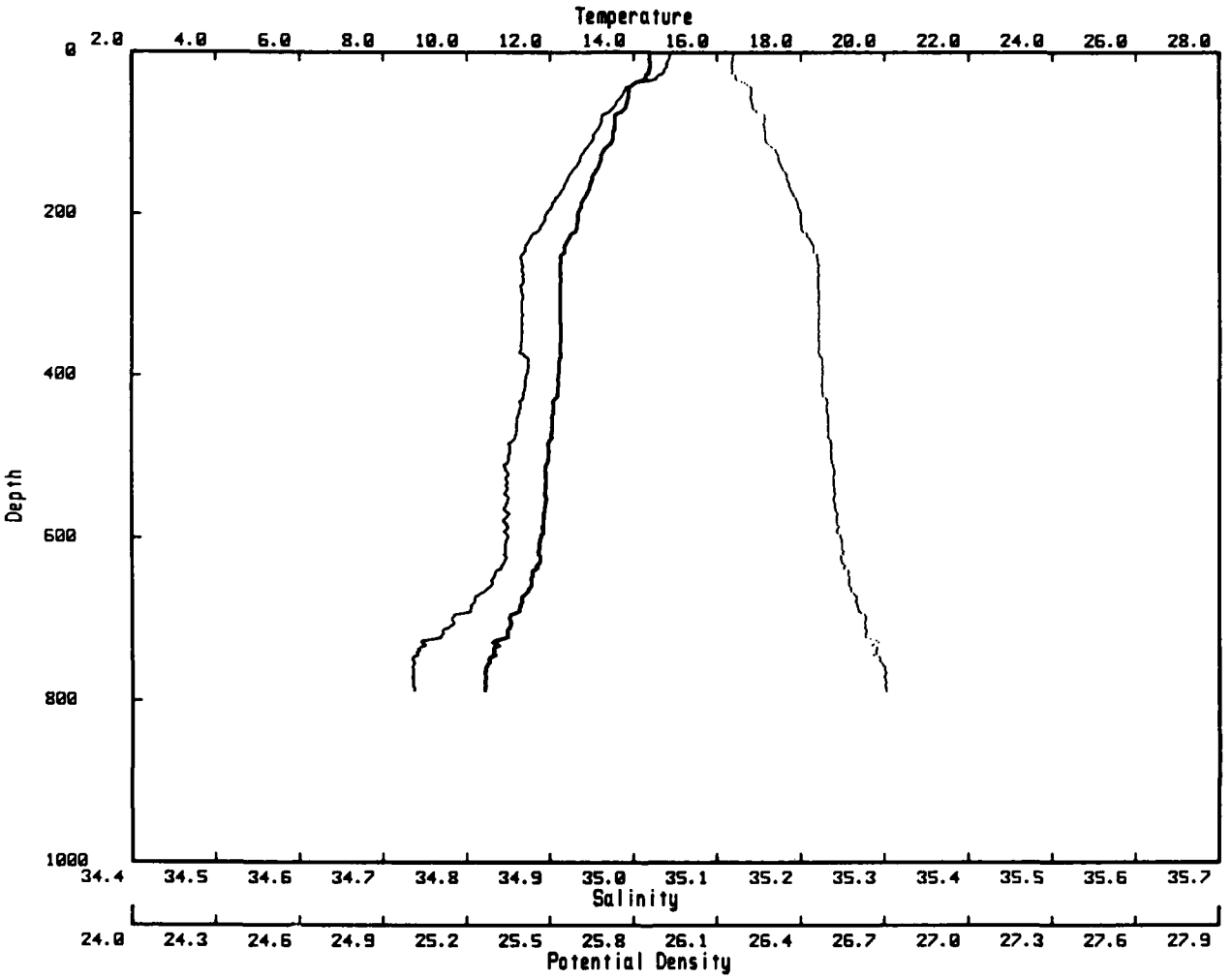
STATION PC7055 : 28 27.7 N 112 45.6 W 14/ 3/85 502Z 590/ 595m



Day: 74.21 SST: 14.6 Tdry: 15.7 Twet: 11.5 Wspd: 17.3 CTD #: 3
SILL-15. RADAR 245AT6.31MI S FRANSQUITO PT.SAT DUBIOUS.
ANC 23 OCT 85 CH:WD,CD. POS:CINDY RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	14.255	35.029	26.174	100.0	13.606	34.959	26.259
10.0	14.263	35.027	26.171	120.0	13.538	34.955	26.270
20.0	14.182	35.018	26.181	140.0	13.493	34.950	26.276
30.0	14.067	35.007	26.197	160.0	13.316	34.943	26.308
40.0	14.049	35.002	26.198	180.0	13.168	34.932	26.330
50.0	14.042	35.001	26.199	200.0	12.954	34.916	26.361
60.0	14.002	34.998	26.205	300.0	12.329	34.869	26.450
70.0	13.778	34.979	26.238	400.0	12.071	34.851	26.489
80.0	13.763	34.976	26.239	500.0	11.894	34.838	26.515
90.0	13.682	34.966	26.248				

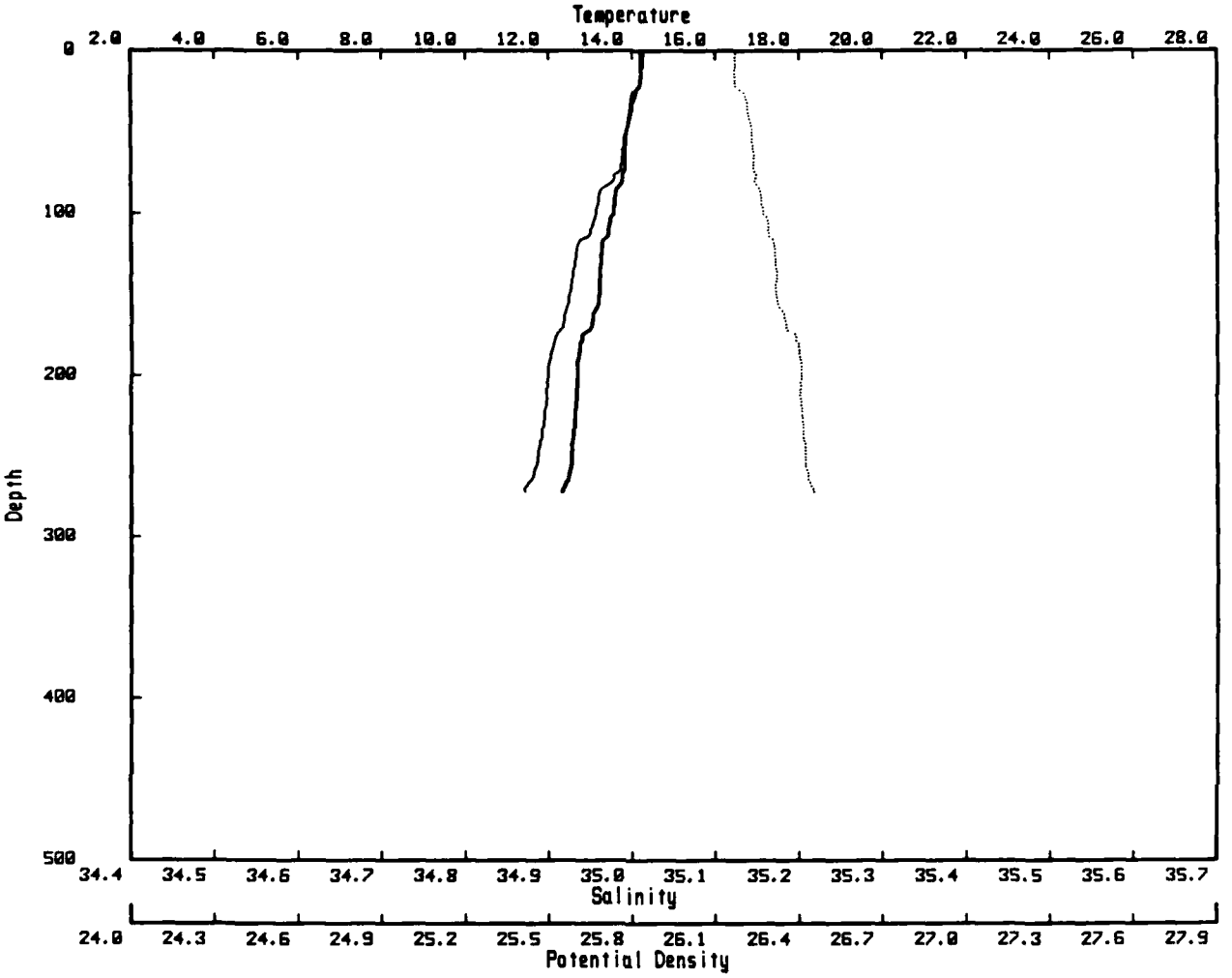
STATION PC7056 : 28 28.4 N 112 44.5 W 14/ 3/85 609Z 788/ 793m



Day: 74.25 SST: 14.6 Tdry: 16.1 Twet: 13.7 Wspd: 9.6 CTD #: 3
SIIL-16.SATPOS NG, WILL PUT RADAR ON LOG SHEET.
ANC 1 NOV 85 CH:WD,CD. POS:CINDY RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	14.375	35.044	26.160	120.0	13.301	34.942	26.309
10.0	14.387	35.041	26.155	140.0	13.160	34.932	26.330
20.0	14.384	35.037	26.153	160.0	12.985	34.919	26.356
30.0	14.286	35.028	26.167	180.0	12.803	34.906	26.383
40.0	13.998	35.000	26.207	200.0	12.664	34.895	26.402
50.0	13.880	34.988	26.223	300.0	12.244	34.867	26.465
60.0	13.851	34.981	26.224	400.0	12.212	34.872	26.478
70.0	13.793	34.975	26.231	500.0	11.967	34.851	26.511
80.0	13.553	34.962	26.271	600.0	11.781	34.849	26.547
90.0	13.556	34.960	26.270	700.0	11.041	34.783	26.634
100.0	13.509	34.953	26.274				

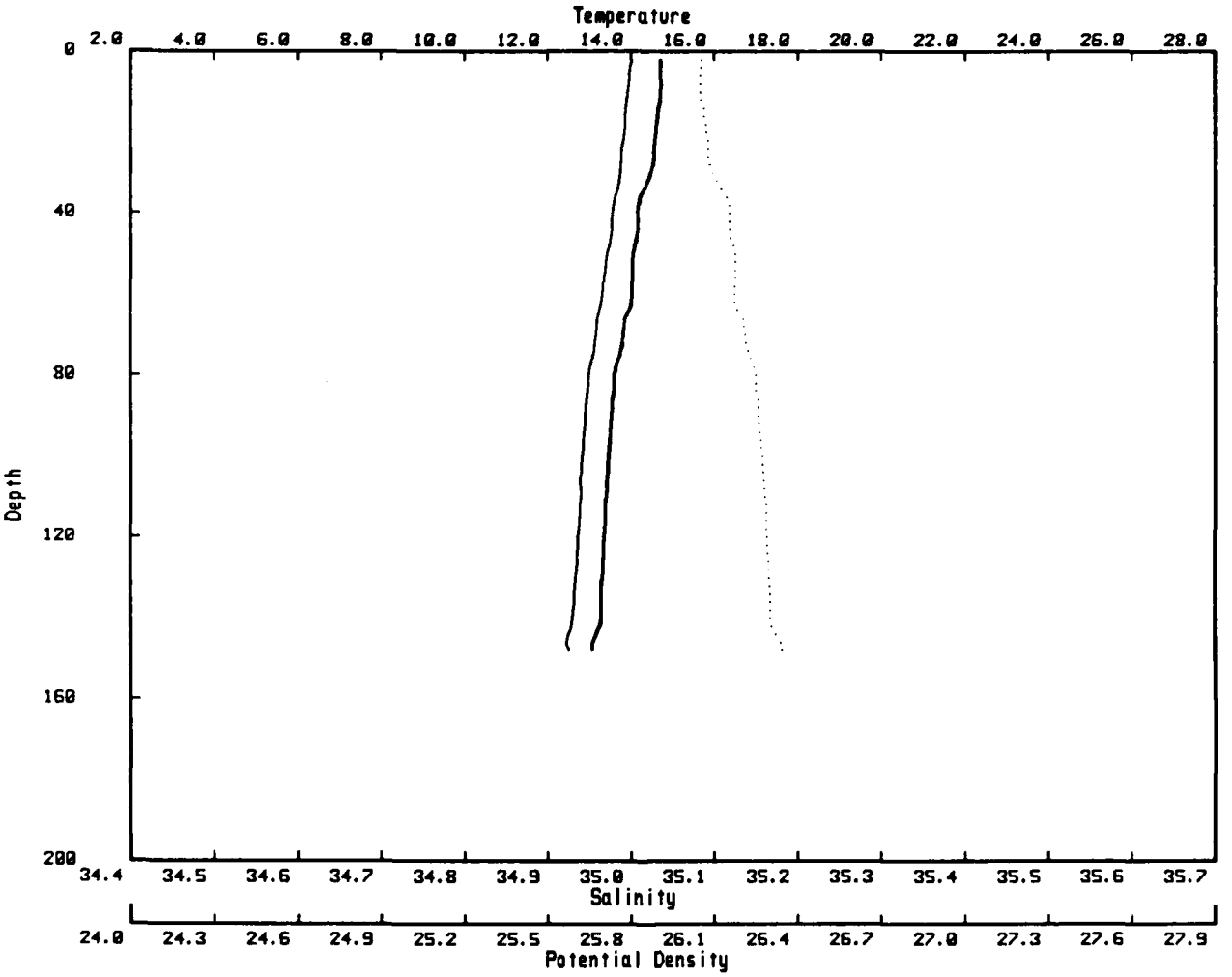
STATION PC7057 : 28 33.0 N 112 45.9 W 15/ 3/85 733Z 270/ 280m



Day: 74.31 SST: 14.5 Tdry: 14.5 Twet: 11.9 Wspd: 10.9 CTD #: 3
SILL-17
ANC 25 SEP 85 CH:WD,CD,LTMIN,LGMIN,T. POS:SAIL

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	14.210	35.015	26.172	80.0	13.754	34.977	26.241
10.0	14.214	35.013	26.170	90.0	13.577	34.959	26.265
20.0	14.200	35.010	26.171	100.0	13.536	34.956	26.271
30.0	13.988	35.003	26.211	120.0	13.268	34.934	26.309
40.0	13.937	34.998	26.218	140.0	13.204	34.927	26.318
50.0	13.853	34.992	26.231	160.0	13.074	34.919	26.338
60.0	13.822	34.988	26.235	180.0	12.729	34.905	26.397
70.0	13.809	34.986	26.237	200.0	12.665	34.898	26.404

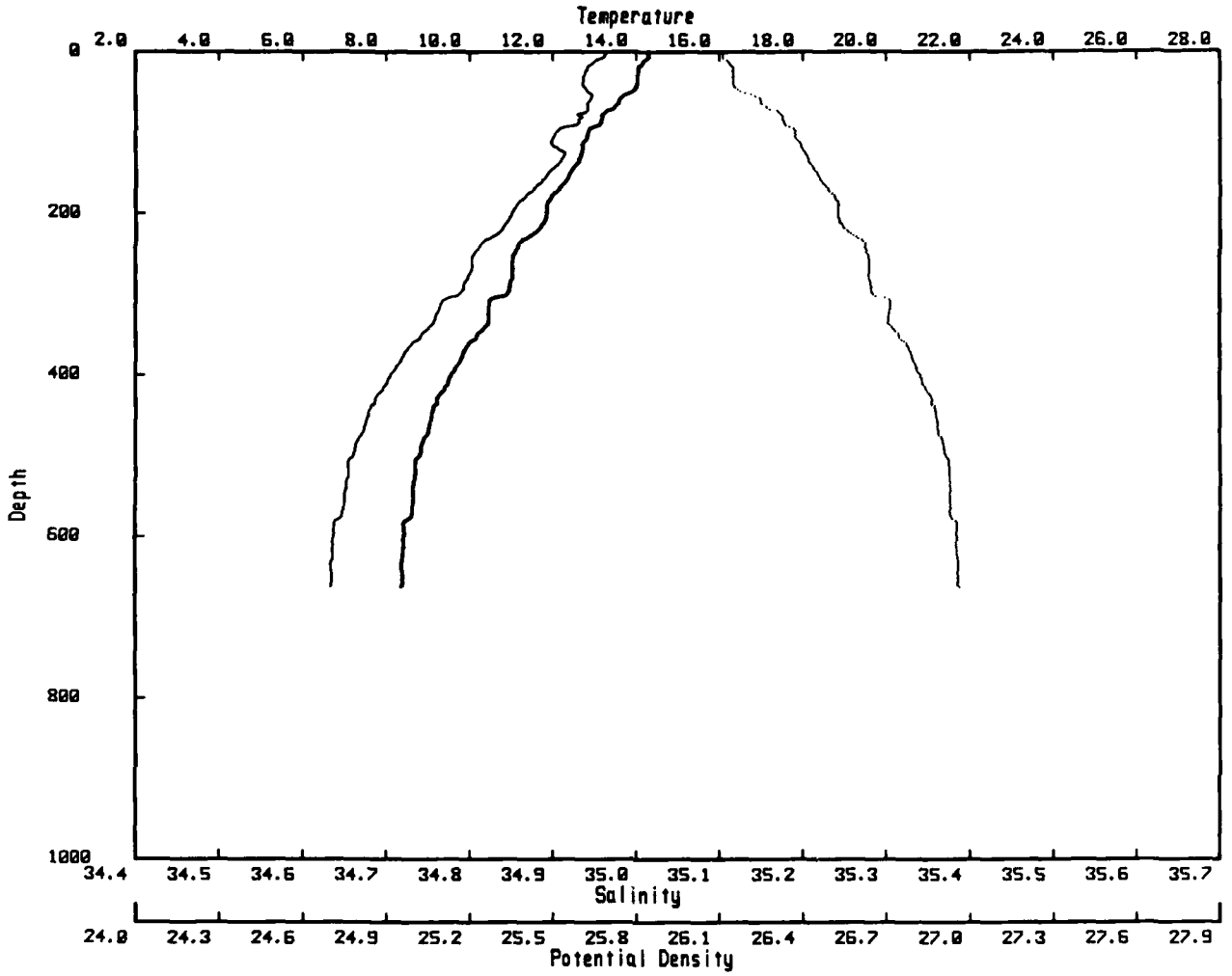
STATION PC7058 : 28 29.8 N 112 52.6 W 15/ 3/85 836Z 148/ 153m



Day: 74.35 SST: 14.9 Tdry: 15.2 Twet: 11.2 Wspd: 15.3 CTD #: 3
SILL-18
ANC 26 SEP 85 CH:LTMIN,LGMIN,WD,CD,T. POS:SAIL

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	14.712	35.001	26.054	70.0	13.821	34.958	26.213
10.0	14.715	34.996	26.050	80.0	13.608	34.950	26.251
20.0	14.596	34.992	26.073	90.0	13.543	34.945	26.261
30.0	14.473	34.987	26.096	100.0	13.465	34.942	26.275
40.0	14.157	34.978	26.156	120.0	13.364	34.937	26.292
50.0	14.048	34.971	26.174	140.0	13.289	34.930	26.303
60.0	14.026	34.966	26.175				

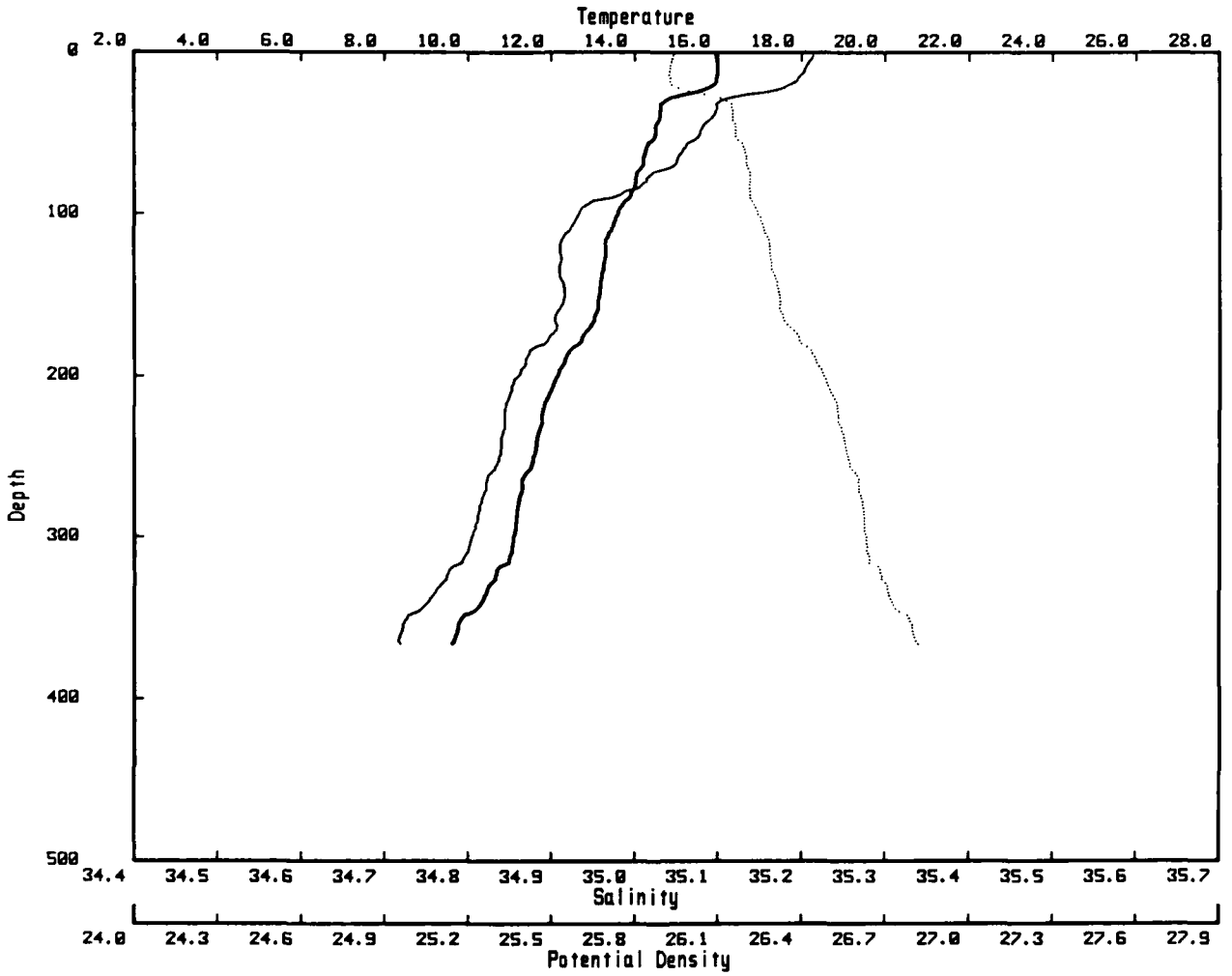
STATION PC7059 : 28 34.7 N 112 35.1 W 15/ 3/85 1300Z 662/ 667m



Day: 74.54 SST: 14.5 Tdry: 14.6 Twet: 12.1 Wspd: 14.7 CTD #: 3
SILL-19
ANC 26 SEP 85 CH:WD,CD. POS:OK

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	14.295	34.965	26.116	100.0	12.839	34.903	26.371
10.0	14.187	34.951	26.128	120.0	12.700	34.906	26.402
20.0	14.055	34.941	26.149	140.0	12.532	34.904	26.434
30.0	14.033	34.937	26.151	160.0	12.291	34.886	26.467
40.0	14.024	34.936	26.152	180.0	11.947	34.865	26.518
50.0	13.861	34.944	26.193	200.0	11.842	34.850	26.526
60.0	13.589	34.944	26.250	300.0	10.896	34.788	26.655
70.0	13.428	34.942	26.281	400.0	9.549	34.705	26.825
80.0	13.181	34.935	26.327	500.0	8.786	34.660	26.915
90.0	13.093	34.927	26.339	600.0	8.424	34.637	26.955

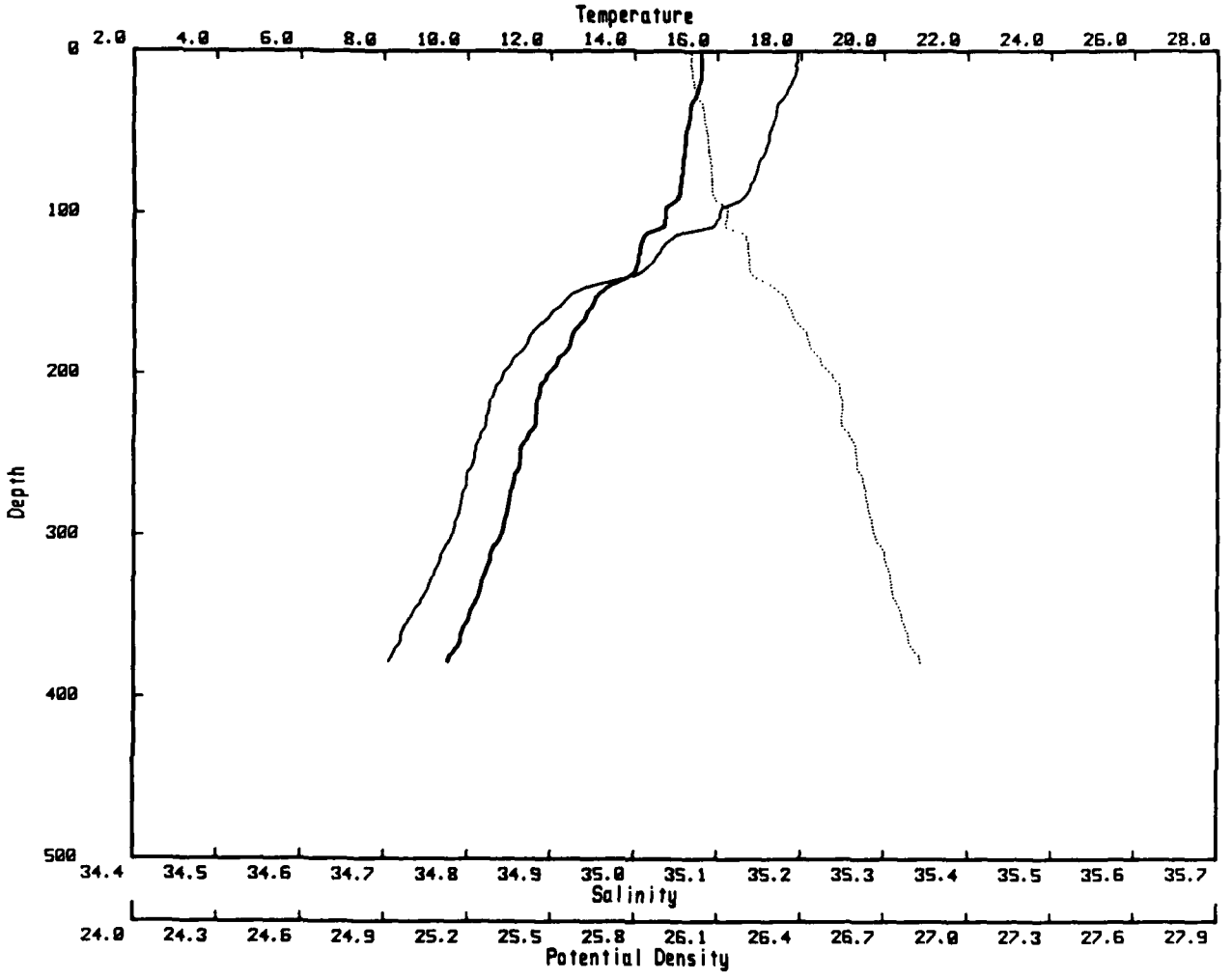
STATION PC7060 : 28 56.8 N 112 40.2 W 15/ 3/85 1423Z 366/ 371m



Day: 74.59 SST: 16.1 Tdry: 15.0 Twet: 12.1 Wspd: 14.3 CTD #: 3
PC7060
ANC 26 SEP 85 CH:LTMIN,LGMIN,WD,CD,T. POS:SAIL

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	15.958	35.214	25.940	90.0	13.858	34.971	26.215
10.0	15.980	35.204	25.927	100.0	13.580	34.932	26.243
20.0	15.894	35.185	25.933	120.0	13.296	34.911	26.286
30.0	14.730	35.103	26.129	140.0	13.194	34.912	26.308
40.0	14.594	35.093	26.151	160.0	13.098	34.907	26.324
50.0	14.492	35.078	26.162	180.0	12.668	34.891	26.398
60.0	14.269	35.058	26.195	200.0	12.129	34.860	26.479
70.0	14.189	35.047	26.204	300.0	11.082	34.804	26.634
80.0	14.021	35.014	26.214				

STATION PC7061 : 29 17.1 N 112 43.3 W 15/ 3/85 1540Z 382/ 387m

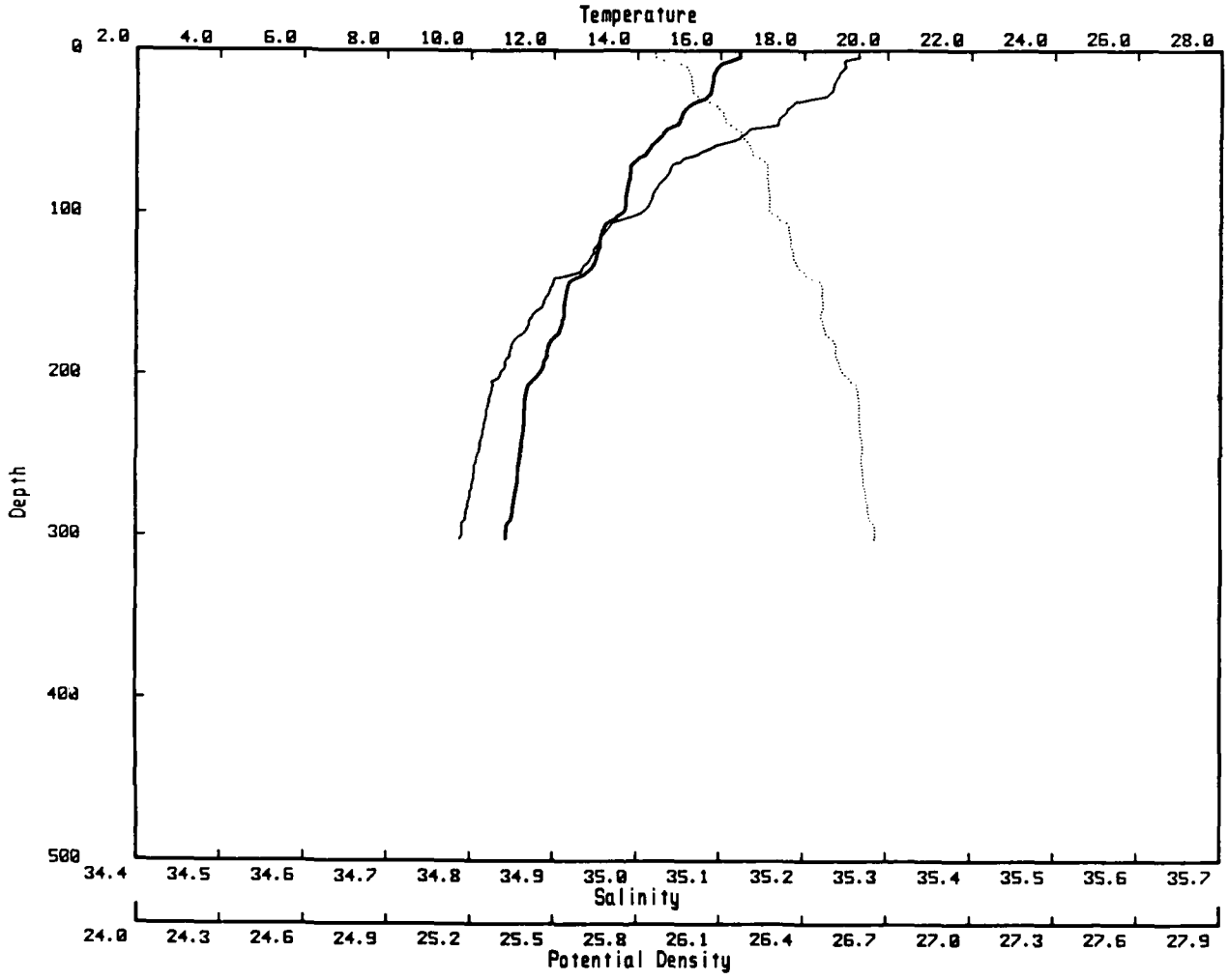


Day: 74.64 SST: 15.8 Tdry: 15.0 Twet: 12.0 Wspd: 16.0 CTD #: 3

ANC 26 SEP 85 CH:WD,CD,T. POS:OK

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	15.608	35.196	26.005	90.0	15.031	35.130	26.086
10.0	15.608	35.195	26.005	100.0	14.728	35.101	26.131
20.0	15.543	35.187	26.014	120.0	14.133	35.035	26.208
30.0	15.410	35.176	26.036	140.0	13.823	34.989	26.238
40.0	15.321	35.169	26.050	160.0	12.898	34.903	26.361
50.0	15.243	35.163	26.063	180.0	12.443	34.871	26.427
60.0	15.212	35.158	26.067	200.0	11.881	34.841	26.512
70.0	15.141	35.148	26.075	300.0	10.801	34.781	26.667
80.0	15.113	35.142	26.077				

STATION PC7062 : 29 6.3 N 112 44.0 W 15/ 3/85 445Z 303/ 308m

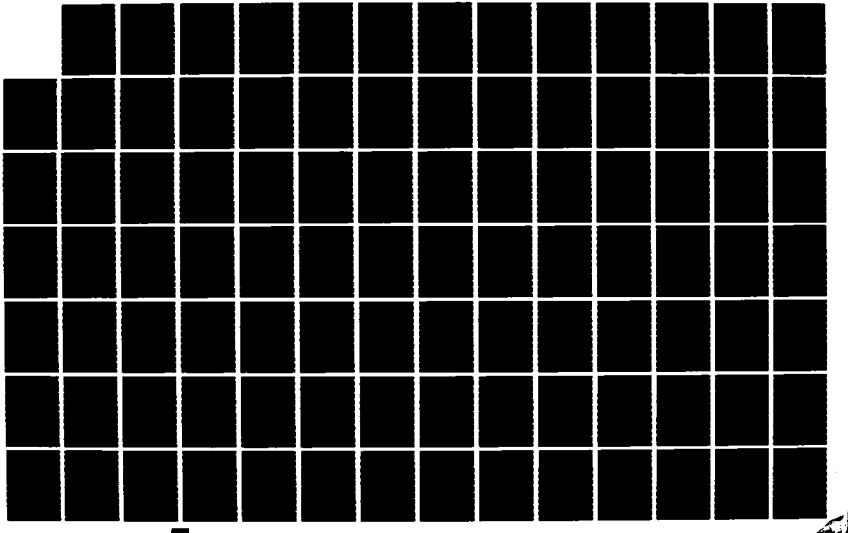


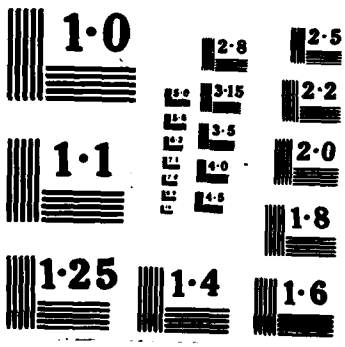
Day: 75.19 SST: 16.7 Tdry: 15.9 Twet: 13.0 Wspd: 1.0 CTD #: 3
STATION T1,SATFIX BAD.
ANC 26 SEP 85 CH:WD,CD. POS:OK *** uptrace ***

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.452	35.265	25.865	90.0	13.737	35.018	26.277
10.0	15.924	35.250	25.975	100.0	13.637	35.003	26.286
20.0	15.790	35.236	25.996	120.0	13.115	34.952	26.354
30.0	15.597	35.206	26.017	140.0	12.534	34.901	26.431
40.0	15.068	35.175	26.111	160.0	12.268	34.880	26.467
50.0	14.638	35.132	26.172	180.0	11.912	34.851	26.513
60.0	14.305	35.088	26.210	200.0	11.641	34.836	26.553
70.0	13.859	35.043	26.270	300.0	10.875	34.790	26.660
80.0	13.798	35.030	26.273				

AD-A169 838 PICHICUCO 7: GULF OF CALIFORNIA CTD DATA REPORT: US RESEARCH VESSEL R/V N.. (U) SCRIPPS INSTITUTION OF OCEANOGRAPHY LA JOLLA CA N A BRAY ET AL. MAR 85 2/3

UNCLASSIFIED SIO-REF-SERIES-86-4 N00014-84-C-0257 F/G 8/10 NL

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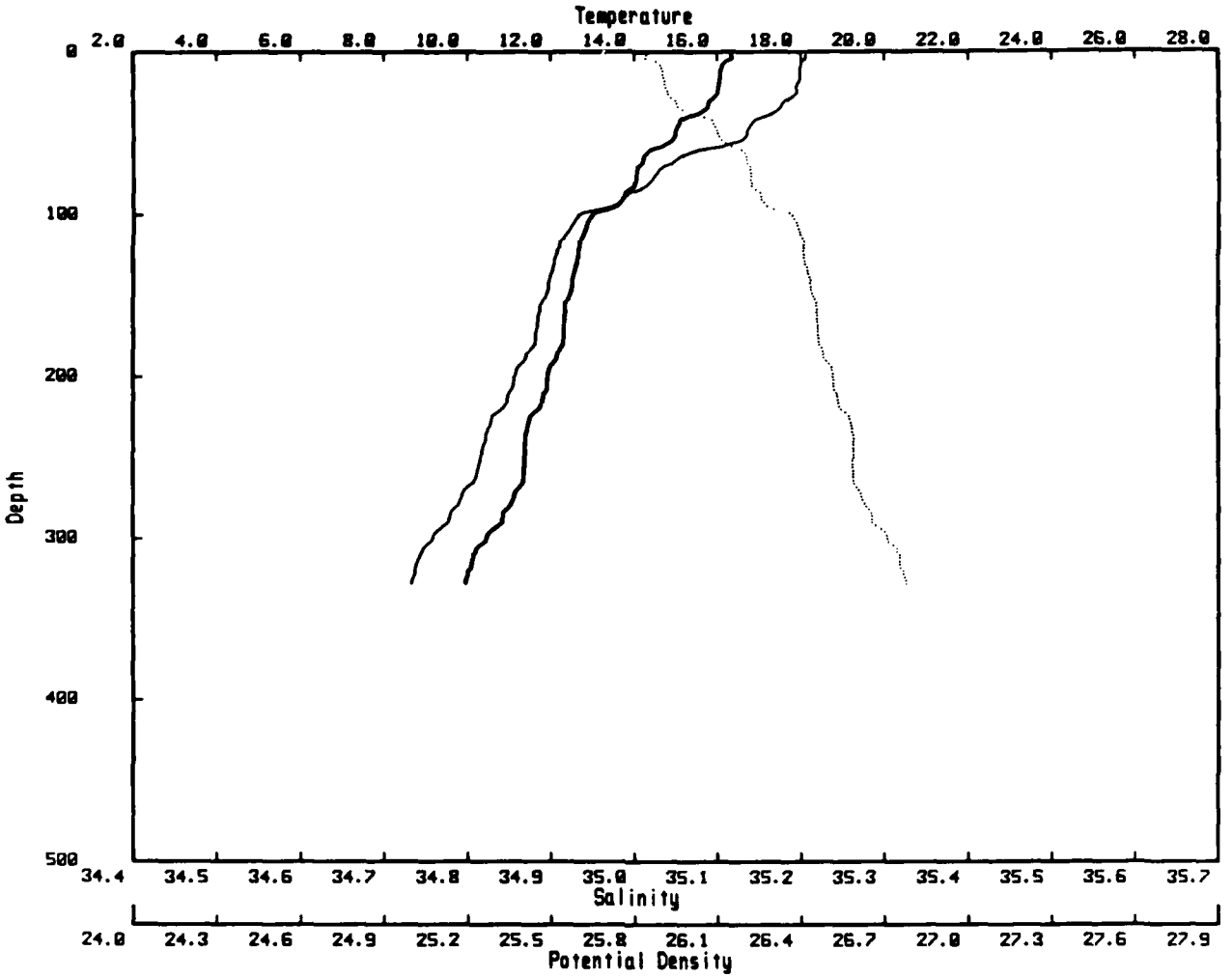
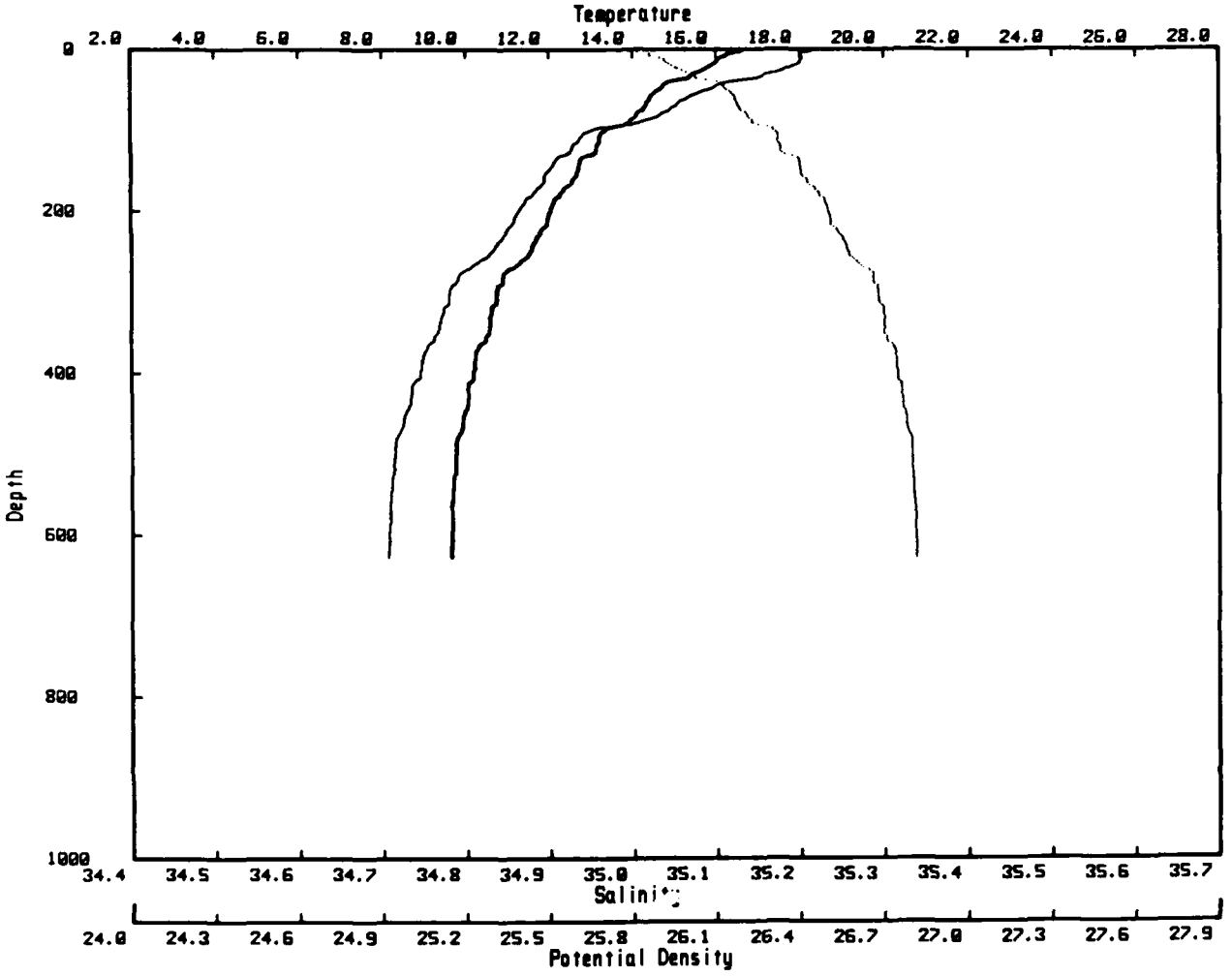
STATION PC7063 : 29 1.3 N 112 38.5 W 15/ 3/85 610Z 327/ 332m



Day: 75.25 SST: 16.5 Tdry: 15.9 Twet: 13.3 Wspd: 6.5 CTD #: 3
STA T2.POSITION IS NOMINAL.
ANC 26 SEP 85 CH:WD,CD. POS:OK

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.342	35.206	25.845	90.0	13.716	34.987	26.257
10.0	16.092	35.199	25.898	100.0	12.966	34.932	26.368
20.0	16.028	35.195	25.910	120.0	12.673	34.909	26.409
30.0	15.816	35.182	25.949	140.0	12.505	34.898	26.434
40.0	15.260	35.154	26.052	160.0	12.338	34.886	26.458
50.0	14.983	35.135	26.099	180.0	12.280	34.880	26.465
60.0	14.384	35.078	26.186	200.0	11.924	34.856	26.515
70.0	14.082	35.035	26.217	300.0	10.452	34.758	26.710
80.0	14.005	35.017	26.220				

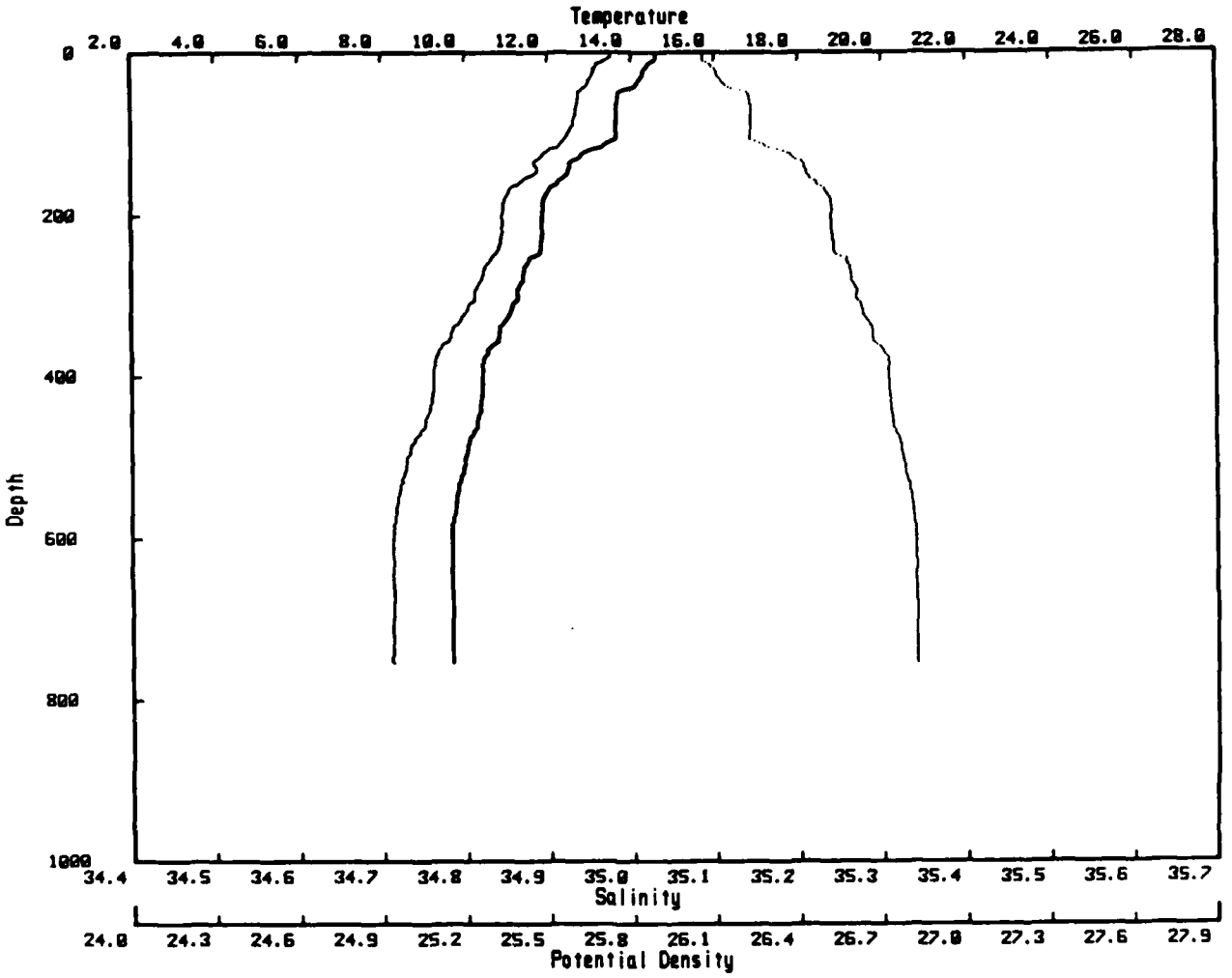
STATION PC7064 : 28 55.5 N 112 41.0 W 16/ 3/85 718Z 628/ 633m



Day: 75.30 SST: 16.8 Tdry: 16.0 Twet: 13.5 Wspd: 3.4 CTD #: 3
STA.T3.POSITION IS 113 AT 5.0 ON PTA WILLARD.
ANC 26 SEP 85 CH:WD,CD. POS:OK

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.612	35.215	25.789	100.0	13.346	34.952	26.307
10.0	16.101	35.203	25.899	120.0	13.139	34.929	26.332
20.0	15.884	35.194	25.942	140.0	12.713	34.905	26.399
30.0	15.453	35.163	26.016	160.0	12.562	34.893	26.420
40.0	14.896	35.118	26.105	180.0	12.252	34.880	26.471
50.0	14.640	35.090	26.140	200.0	12.033	34.864	26.501
60.0	14.427	35.067	26.168	300.0	10.727	34.780	26.679
70.0	14.318	35.052	26.180	400.0	10.180	34.745	26.750
80.0	14.108	35.034	26.211	500.0	9.748	34.714	26.801
90.0	13.933	35.011	26.231	600.0	9.637	34.707	26.816

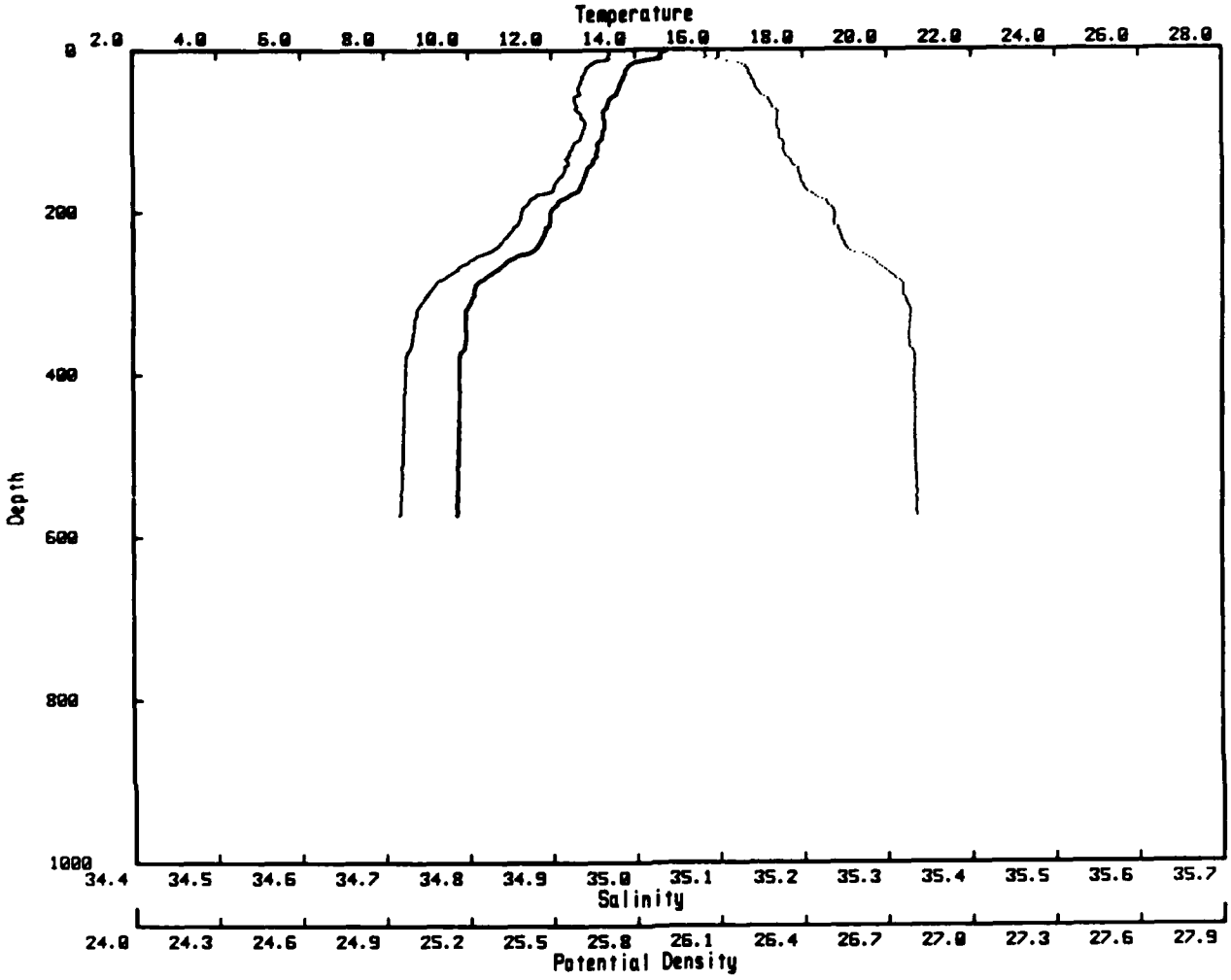
STATION PC7065 : 28 52.3 N 112 39.4 W 16/ 3/85 852Z 752/ 757m



Day: 75.36 SST: 14.9 Tdry: 15.8 Twet: 13.6 Wspd: 3.9 CTD #: 3
STA.T4. 073 AT 3.5 PTA. WILLARD.
ANC 10 OCT 85 CH:WD,CD. POS:ANC RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	14.590	34.975	26.060	120.0	12.945	34.899	26.347
10.0	14.554	34.968	26.063	140.0	12.519	34.886	26.422
20.0	14.330	34.955	26.101	160.0	12.206	34.864	26.467
30.0	14.254	34.952	26.115	180.0	11.876	34.847	26.517
40.0	14.122	34.947	26.140	200.0	11.860	34.844	26.518
50.0	13.692	34.937	26.223	300.0	11.264	34.811	26.606
60.0	13.667	34.935	26.226	400.0	10.414	34.761	26.721
70.0	13.640	34.934	26.232	500.0	9.981	34.729	26.773
80.0	13.636	34.931	26.230	600.0	9.654	34.712	26.817
90.0	13.624	34.928	26.231	700.0	9.657	34.712	26.818
100.0	13.622	34.923	26.228				

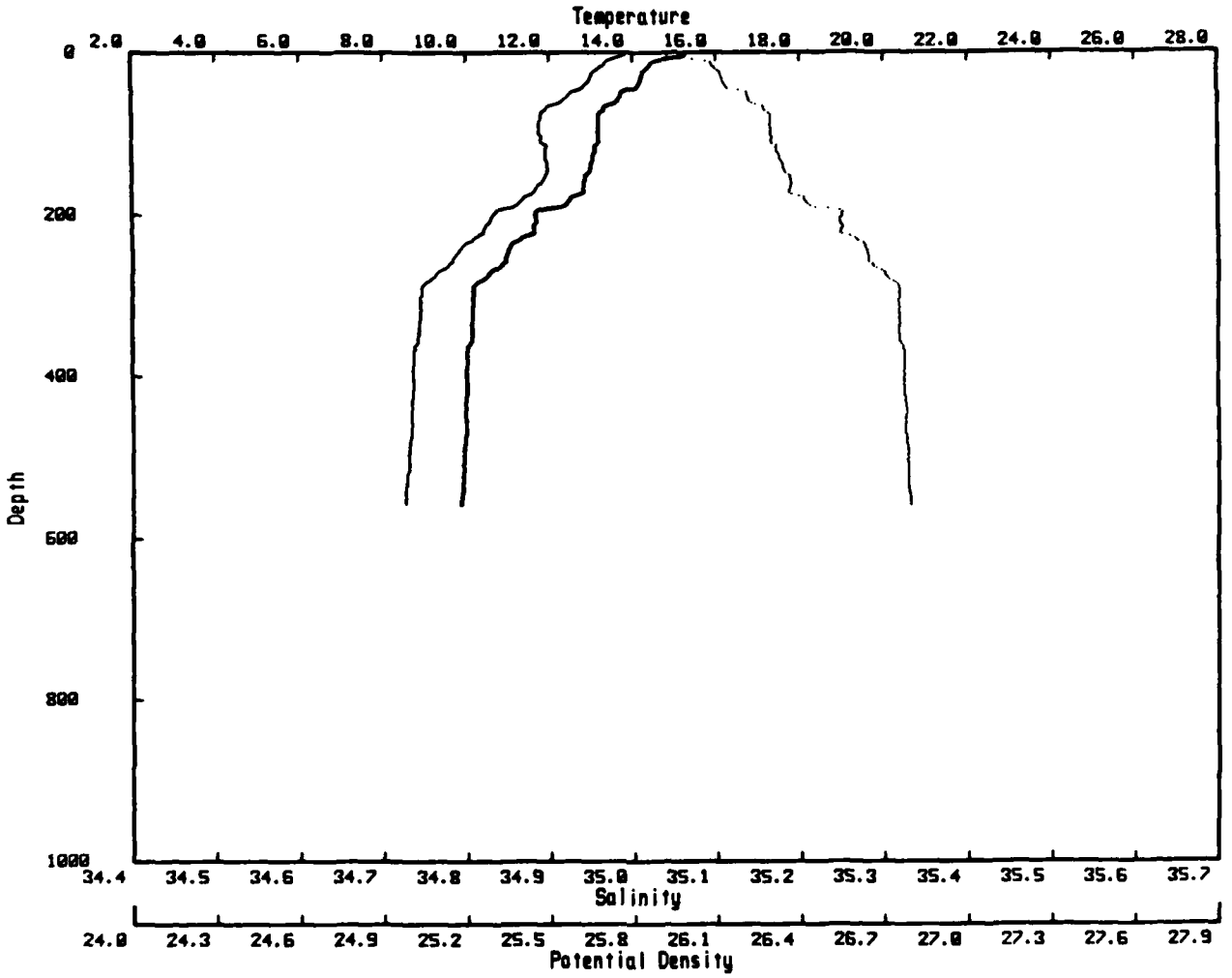
STATION PC7066 : 28 48.5 N 112 35.0 W 16/ 3/85 1020Z 572/ 613m



Day: 75.43 SST: 15.2 Tdry: 15.1 Twet: 13.0 Wspd: 3.6 CTD #: 3
STA. T5. 350 AT 5.0 PTA WILLARD.
ANC 10 OCT CH:WD,CD. POS:ANC RADAR *** uptrace ***

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	14.749	34.968	26.020	100.0	13.240	34.938	26.318
10.0	14.620	34.970	26.050	120.0	13.118	34.926	26.334
20.0	13.843	34.945	26.196	140.0	12.965	34.920	26.360
30.0	13.761	34.938	26.208	160.0	12.759	34.907	26.392
40.0	13.658	34.935	26.228	180.0	12.385	34.881	26.446
50.0	13.590	34.932	26.240	200.0	11.972	34.864	26.513
60.0	13.397	34.928	26.277	300.0	10.142	34.752	26.759
70.0	13.332	34.931	26.293	400.0	9.793	34.725	26.800
80.0	13.253	34.936	26.313	500.0	9.771	34.722	26.803
90.0	13.285	34.941	26.310				

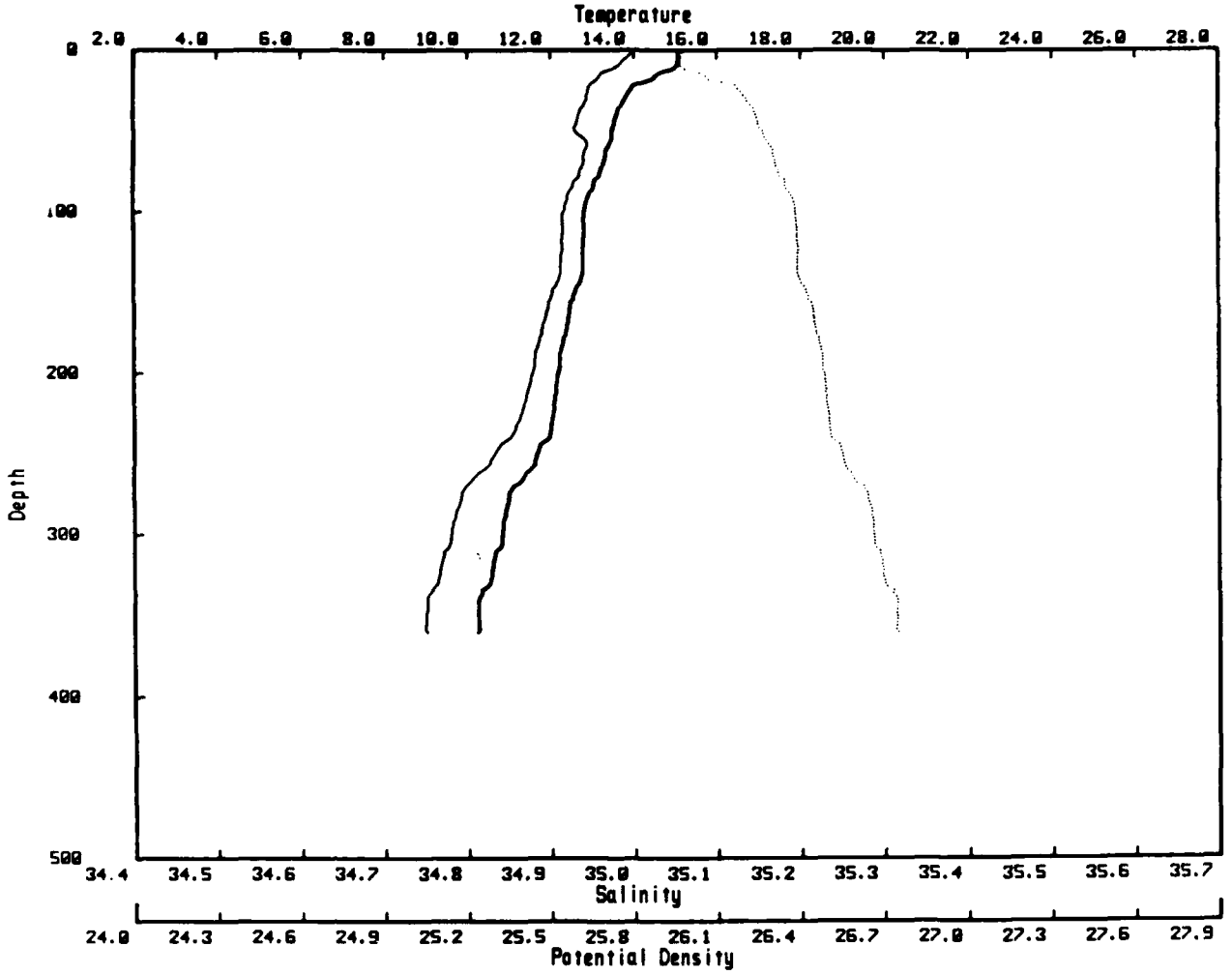
STATION PC7067 : 28 48.0 N 112 31.5 W 16/ 3/85 1120Z 557/ 562m



Day: 75.47 SST: 15.4 Tdry: 15.1 Twet: 13.5 Wspd: 4.6 CTD #: 3
T6 RADAR ON CTD LOG SHEET, SATFIX GUASTO.
ANC 22 OCT 85 CH:WD,CD. POS:ANC RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	15.257	34.992	25.927	100.0	13.154	34.886	26.295
10.0	14.559	34.969	26.063	120.0	13.089	34.895	26.315
20.0	14.351	34.959	26.100	140.0	12.976	34.897	26.340
30.0	14.221	34.950	26.121	160.0	12.809	34.890	26.369
40.0	14.132	34.943	26.135	180.0	12.492	34.868	26.415
50.0	13.706	34.924	26.210	200.0	11.639	34.831	26.550
60.0	13.622	34.915	26.220	300.0	10.148	34.745	26.753
70.0	13.293	34.895	26.273	400.0	9.989	34.735	26.774
80.0	13.161	34.889	26.295	500.0	9.916	34.730	26.785
90.0	13.162	34.887	26.294				

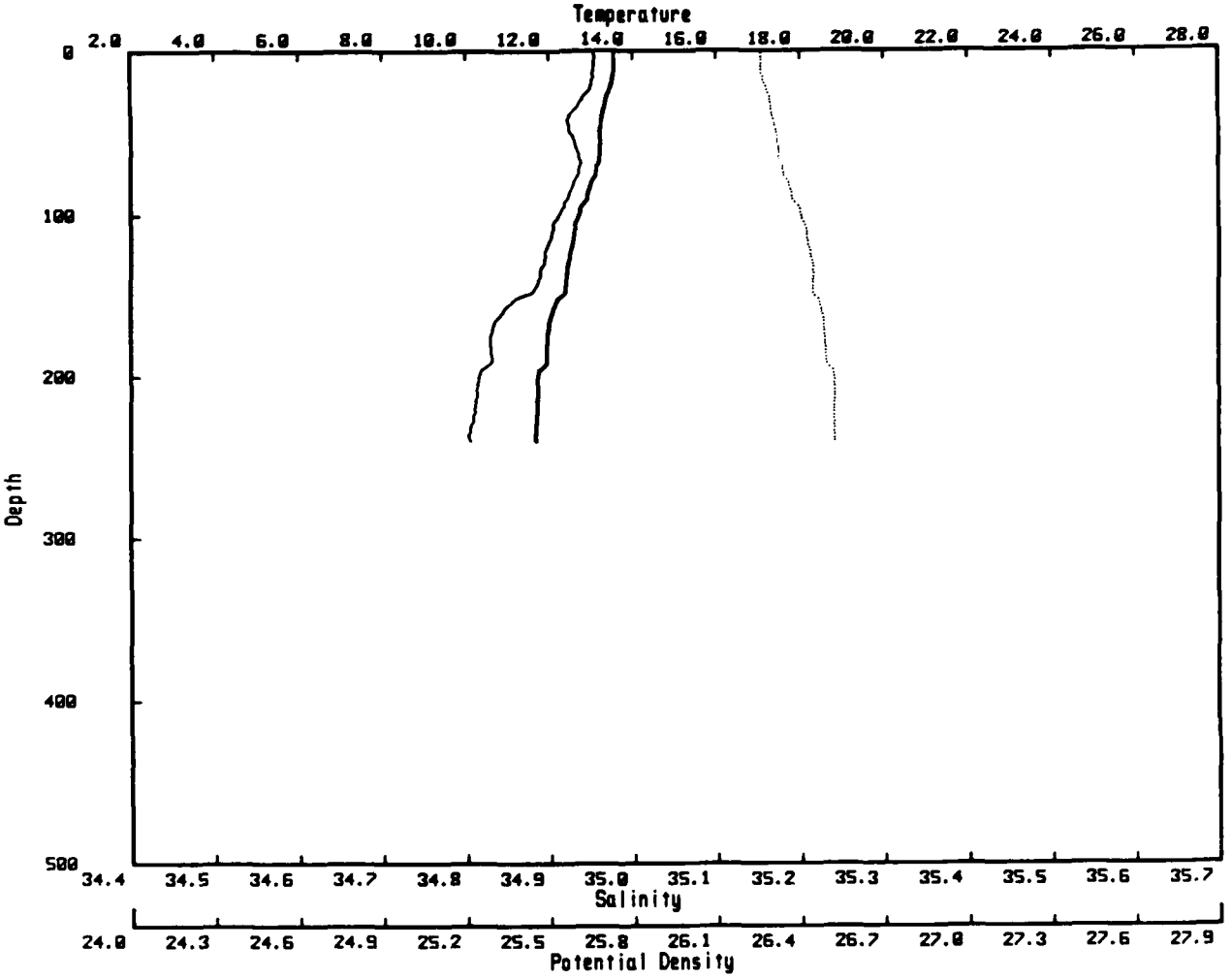
STATION PC7068 : 28 42.4 N 112 29.3 W 16/ 3/85 1233Z 359/ 385m



Day: 75.51 SST: 15.6 Tdry: 14.9 Twet: 13.3 Wspd: 1.7 CTD #: 3
T7.SATFIX NG.REQUESTED POS 28 42.5,112 28.4.RDR ON LOG.
ANC 10 OCT CH:WD,CD. POS:ANC RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	15.066	34.997	25.973	90.0	12.924	34.921	26.368
10.0	15.023	34.981	25.971	100.0	12.827	34.916	26.384
20.0	14.230	34.951	26.119	120.0	12.787	34.914	26.391
30.0	13.797	34.944	26.206	140.0	12.755	34.911	26.395
40.0	13.592	34.934	26.241	160.0	12.452	34.896	26.444
50.0	13.462	34.929	26.264	180.0	12.299	34.886	26.466
60.0	13.365	34.943	26.295	200.0	12.170	34.878	26.485
70.0	13.275	34.939	26.310	300.0	10.826	34.780	26.661
80.0	13.083	34.931	26.343				

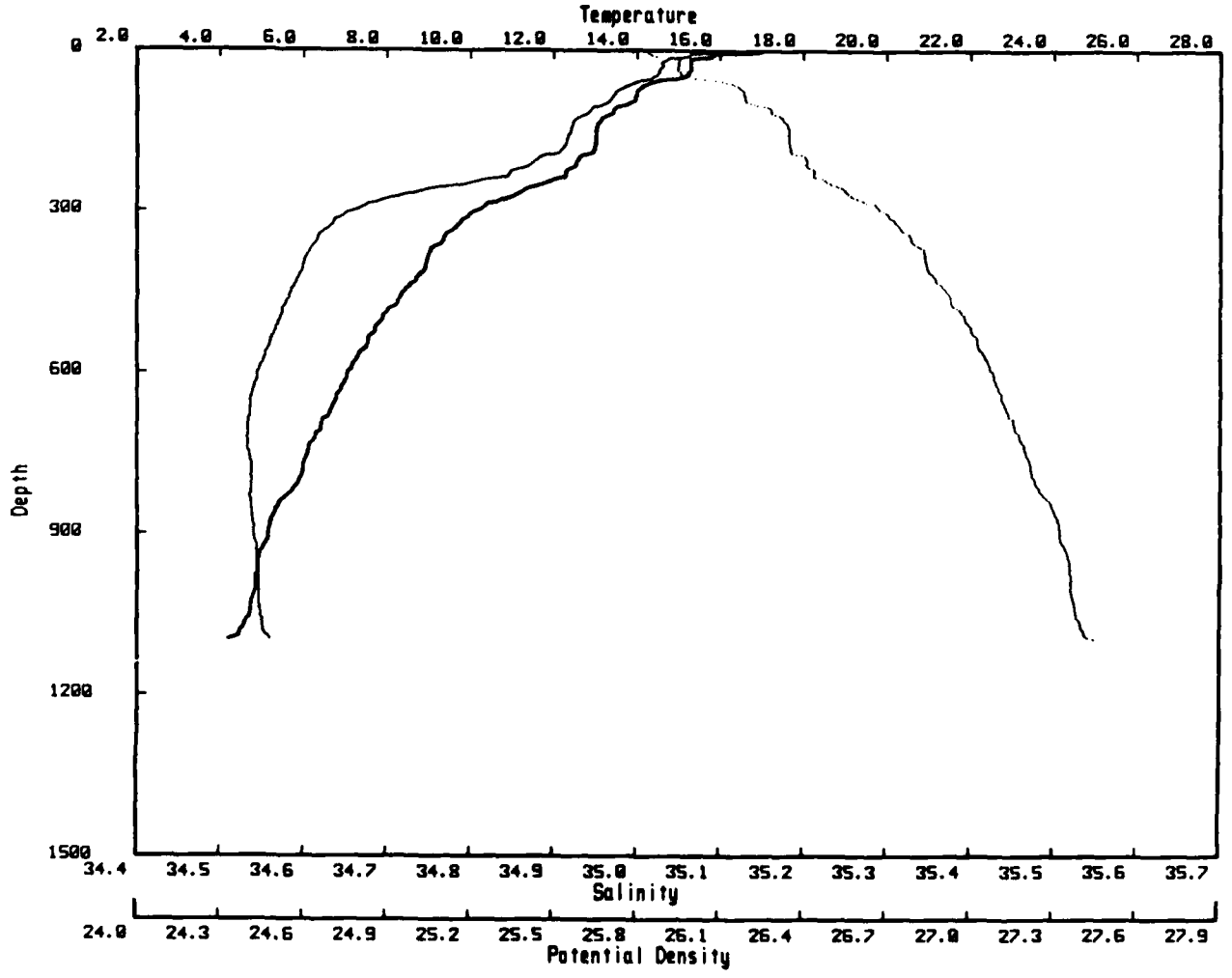
STATION PC7069 : 28 37.0 N 112 25.5 W 16/ 3/85 1342Z 243/ 248m



Day: 75.56 SST: 13.8 Tdry: 14.9 Twet: 12.7 Wspd: 3.6 CTD #: 3
T8. SATFIX NG.RADAR 039 @ 8.8MI S.END TURNER ISL.
ANC 10 OCT 85 CH:WD,CD. POS:CINDY RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	13.557	34.954	26.262	80.0	12.992	34.929	26.360
10.0	13.551	34.953	26.263	90.0	12.903	34.921	26.372
20.0	13.500	34.951	26.272	100.0	12.701	34.911	26.405
30.0	13.358	34.939	26.292	120.0	12.514	34.896	26.430
40.0	13.256	34.923	26.301	140.0	12.403	34.887	26.446
50.0	13.192	34.924	26.315	160.0	12.068	34.844	26.478
60.0	13.190	34.932	26.322	180.0	11.944	34.829	26.490
70.0	13.127	34.936	26.338	200.0	11.717	34.815	26.523

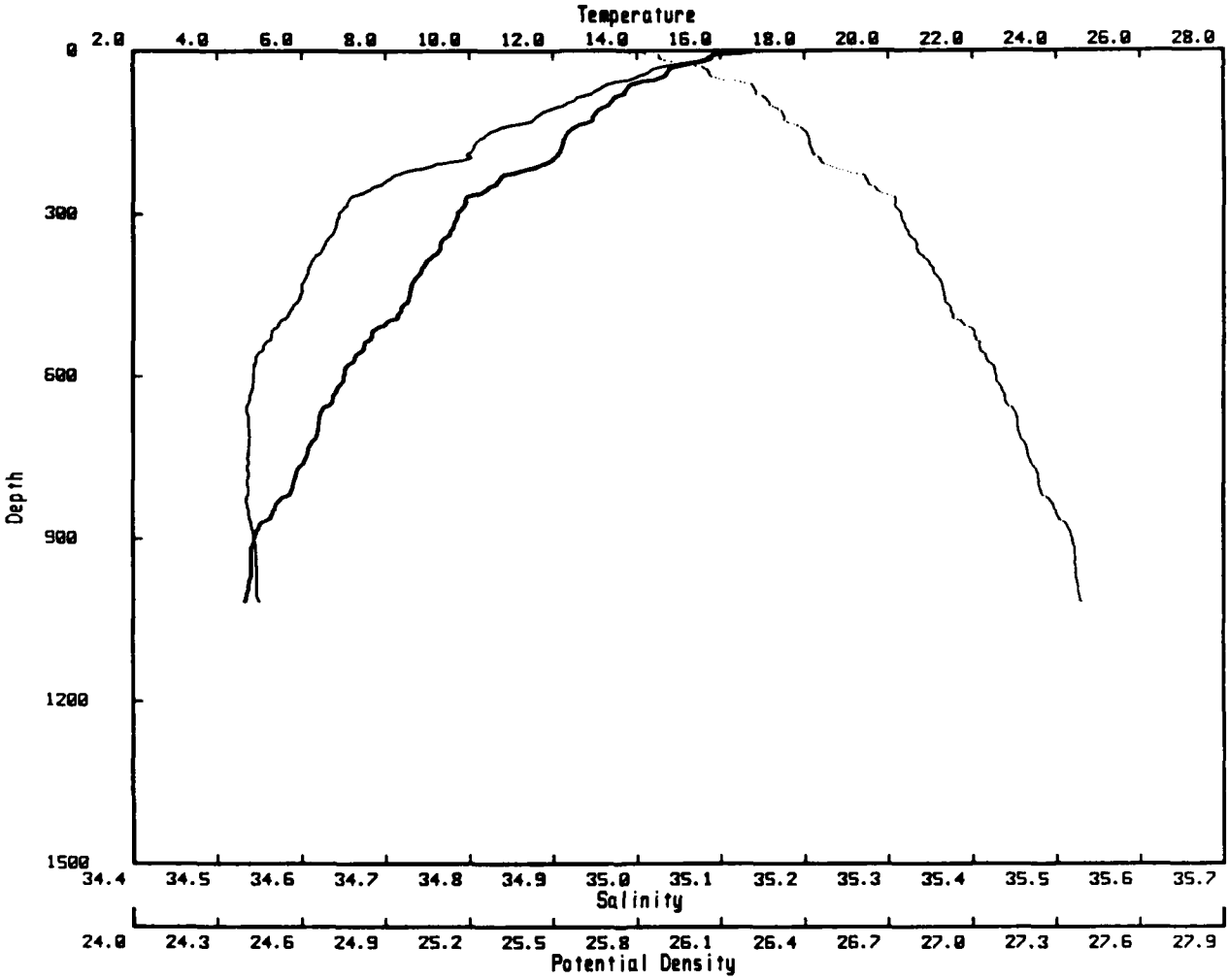
STATION PC7070 : 28 .0 N 112 17.8 W 16/ 3/85 129Z 1097/1102m



Day: 76.05 SST: 17.4 Tdry: 17.3 Twet: 14.5 Wspd: 8.7 CTD #: 3
WS-15.OMEGA FIX.RADAR353 AT 22MI S PT S PEDRO MARTYR.
ANC 10 OCT 85 CH:WD,CD. POS:ANC RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.982	35.109	25.620	140.0	13.055	34.923	26.344
10.0	15.828	35.064	25.855	160.0	13.018	34.917	26.348
20.0	15.289	35.034	25.953	180.0	12.985	34.912	26.351
30.0	15.297	35.031	25.949	200.0	12.595	34.883	26.407
40.0	15.253	35.028	25.957	300.0	10.128	34.660	26.690
50.0	15.123	35.020	25.980	400.0	8.925	34.599	26.843
60.0	14.386	34.999	26.124	500.0	7.892	34.571	26.981
70.0	14.109	34.984	26.172	600.0	7.043	34.544	27.083
80.0	14.003	34.974	26.187	700.0	6.412	34.533	27.160
90.0	13.964	34.969	26.192	800.0	5.881	34.537	27.232
100.0	13.783	34.960	26.223	900.0	5.152	34.540	27.323
120.0	13.346	34.938	26.297	1000.0	4.850	34.546	27.364

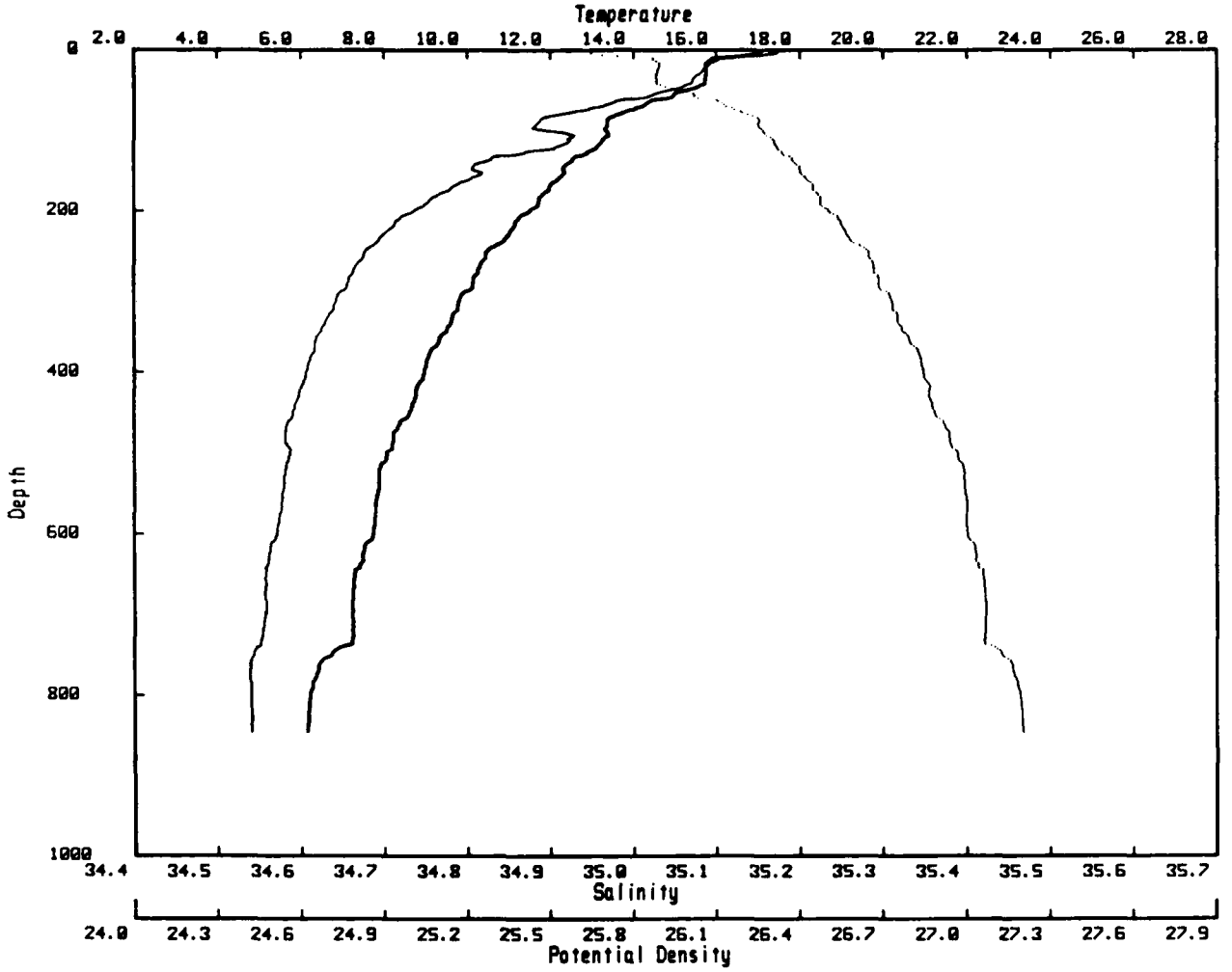
STATION PC7071 : 28 4.3 N 112 23.9 W 16/ 3/85 338Z 1015/1030m



Day: 76.14 SST: 16.3 Tdry: 16.8 Twet: 14.4 Wspd: 12.9 CTD #: 3
WS-14.POS IS OMEGA.RADAR 015AT17MI S. SAN PEDRO MARTYR.
ANC 10 OCT 85 CH:CD,WD. POS:SAIL

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.427	35.139	25.774	140.0	12.503	34.838	26.388
10.0	15.796	35.088	25.880	160.0	12.249	34.813	26.419
20.0	15.546	35.071	25.924	180.0	12.175	34.804	26.427
30.0	14.890	35.029	26.038	200.0	11.961	34.790	26.457
40.0	14.735	35.015	26.061	300.0	9.722	34.645	26.747
50.0	14.573	34.999	26.084	400.0	8.861	34.609	26.861
60.0	13.980	34.972	26.190	500.0	8.018	34.574	26.965
70.0	13.766	34.957	26.223	600.0	7.007	34.544	27.088
80.0	13.690	34.946	26.231	700.0	6.394	34.538	27.166
90.0	13.441	34.927	26.268	800.0	5.814	34.536	27.240
100.0	13.342	34.914	26.278	900.0	4.880	34.544	27.358
120.0	12.958	34.880	26.330	1000.0	4.705	34.547	27.381

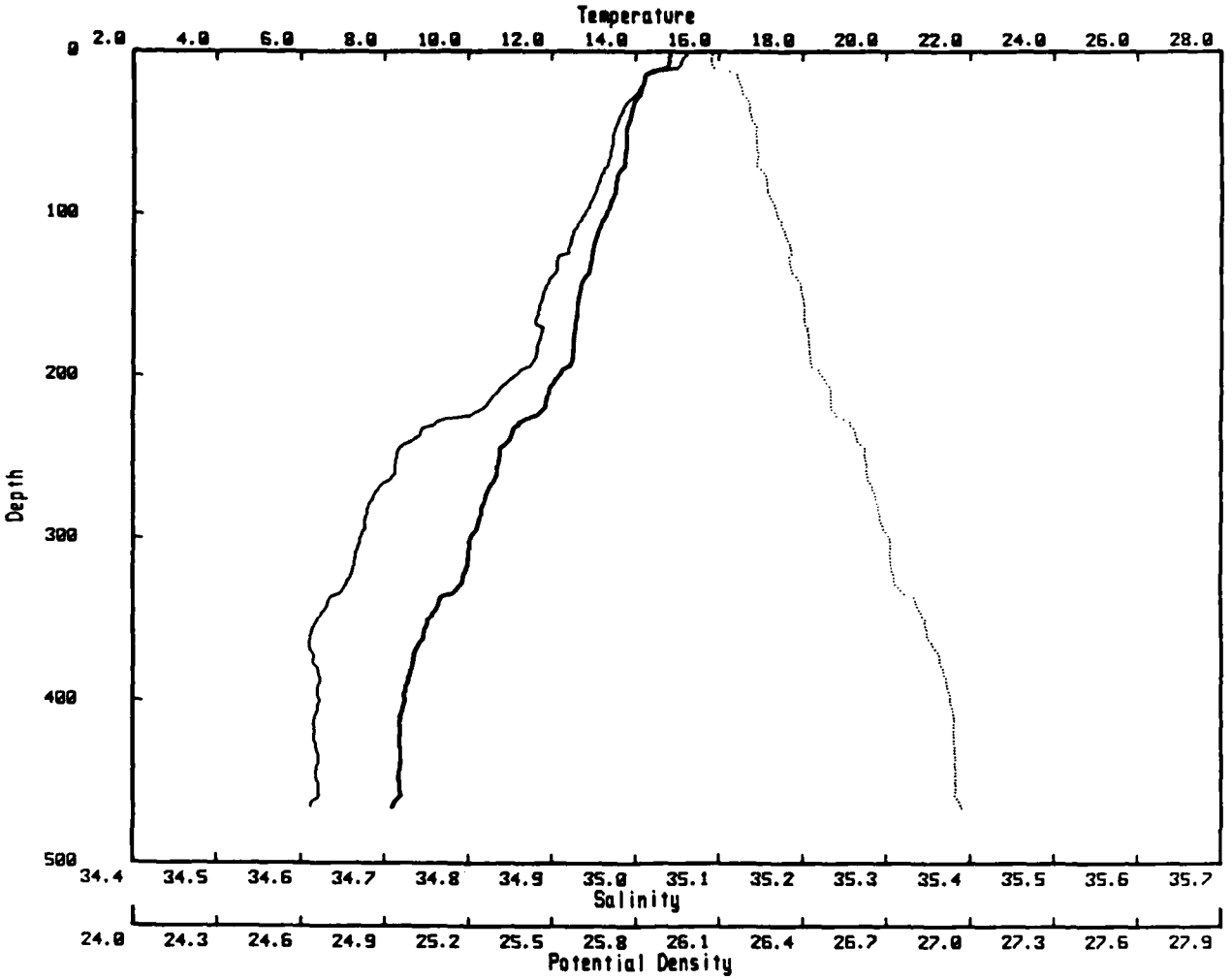
STATION PC7072 : 28 15.0 N 112 28.5 W 16/ 3/85 551Z 846/ 851m



Day: 76.23 SST: 17.2 Tdry: 15.9 Twet: 14.5 Wspd: 14.7 CTD #: 3
WS-13.BATHY POS 198.RADAR045,9.4MI S PEDRO M.
ANC 22 OCT 85 CH:WD,CD,T. POS:ANC RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	17.070	35.174	25.649	120.0	13.112	34.906	26.319
10.0	15.900	35.105	25.870	140.0	12.433	34.814	26.383
20.0	15.741	35.089	25.894	160.0	12.185	34.804	26.424
30.0	15.751	35.079	25.884	180.0	11.796	34.765	26.469
40.0	15.729	35.070	25.883	200.0	11.481	34.735	26.505
50.0	15.239	35.042	25.971	300.0	9.943	34.648	26.712
60.0	14.854	35.010	26.032	400.0	8.957	34.606	26.844
70.0	14.208	34.961	26.133	500.0	8.065	34.587	26.968
80.0	13.643	34.910	26.213	600.0	7.739	34.571	27.005
90.0	13.365	34.885	26.251	700.0	7.230	34.557	27.068
100.0	13.339	34.897	26.266	800.0	6.215	34.540	27.192

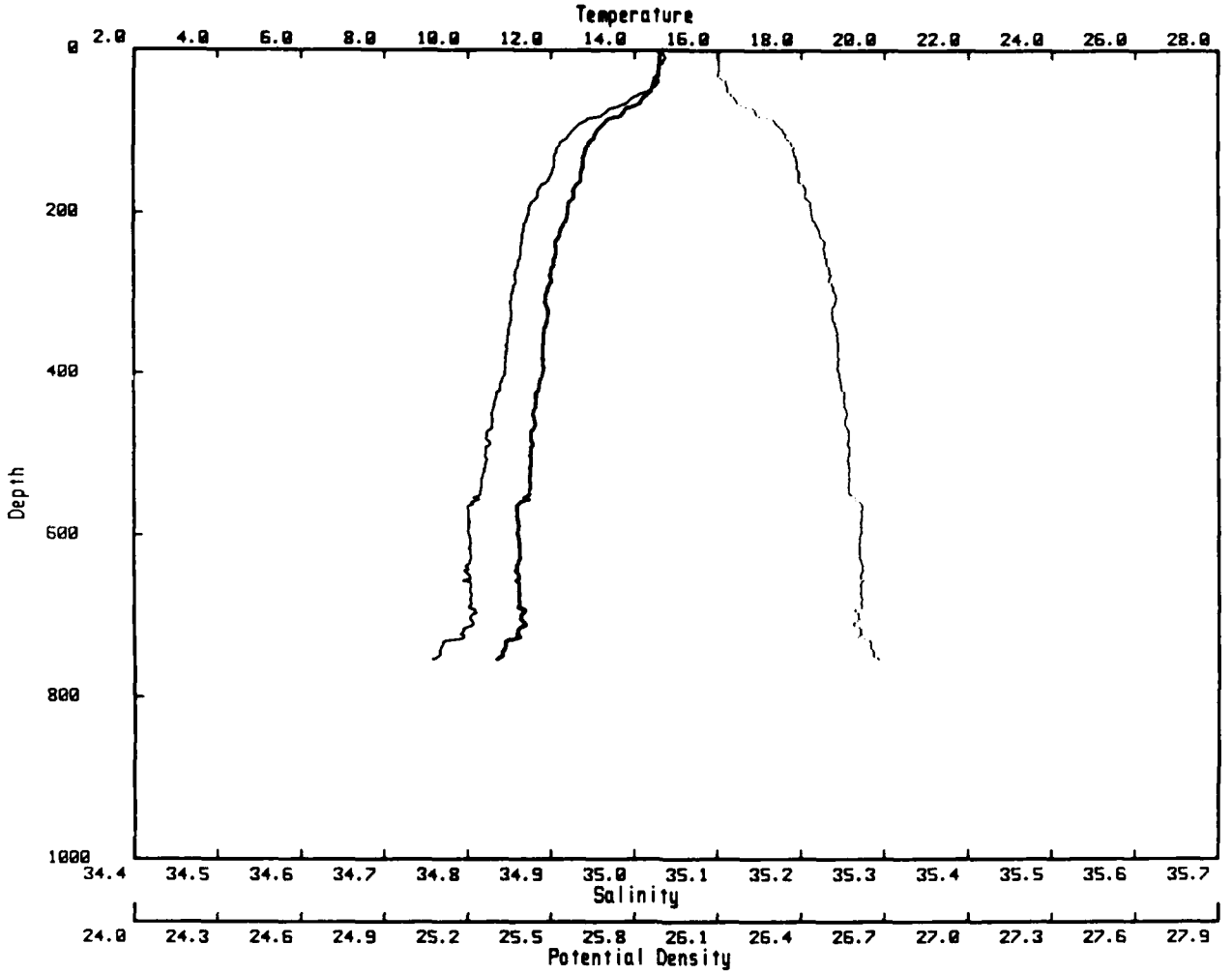
STATION PC7073 : 28 22.0 N 112 35.6 W 17/ 3/85 744Z 464/ 469m



Day: 76.31 SST: 15.1 Tdry: 15.1 Twet: 14.2 Wspd: 9.9 CTD #: 3
WS-12 OMEGA POSITIONING WAS USED
ANC 10 OCT 85 CH:CD,WD,T. POS:ANC RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	14.825	35.061	26.075	90.0	13.444	34.948	26.283
10.0	14.758	35.051	26.083	100.0	13.290	34.939	26.308
20.0	14.174	35.008	26.175	120.0	12.991	34.921	26.355
30.0	13.976	34.991	26.204	140.0	12.758	34.897	26.384
40.0	13.880	34.981	26.217	160.0	12.597	34.883	26.405
50.0	13.777	34.973	26.233	180.0	12.507	34.883	26.423
60.0	13.761	34.970	26.234	200.0	12.155	34.855	26.471
70.0	13.733	34.966	26.237	300.0	10.047	34.670	26.712
80.0	13.535	34.956	26.271	400.0	8.497	34.623	26.929

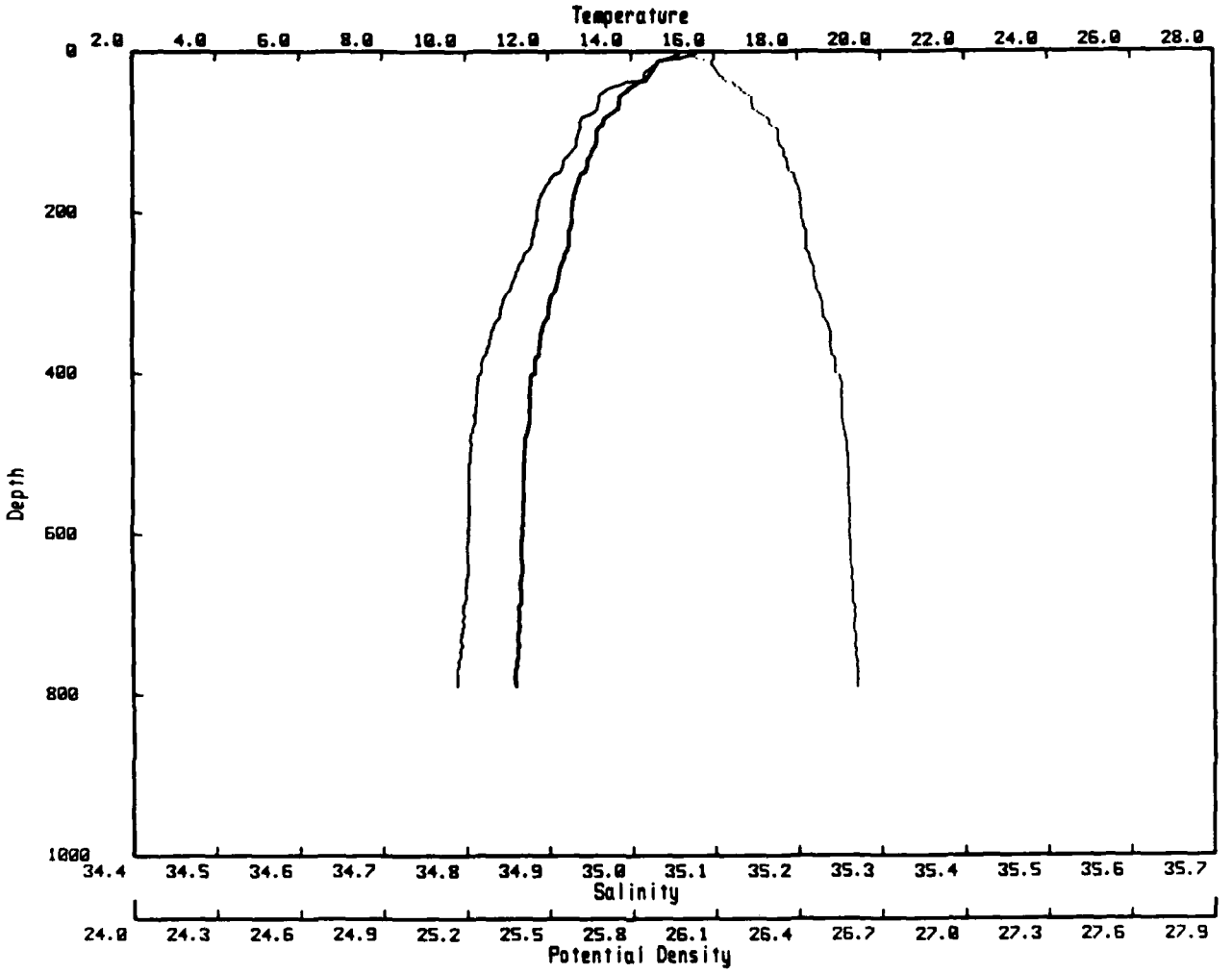
STATION PC7074 : 28 29.4 N 112 43.1 W 17/ 3/85 956Z 760/ 765m



Day: 76.40 SST: 14.7 Tdry: 15.1 Twet: 14.3 Wspd: 5.3 CTD #: 3
WS -11
ANC 18 OCT 85 CH:WD,CD. POS:ANC RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	14.587	35.030	26.103	120.0	12.847	34.908	26.374
10.0	14.605	35.037	26.105	140.0	12.768	34.904	26.387
20.0	14.582	35.029	26.104	160.0	12.718	34.898	26.393
30.0	14.587	35.028	26.103	180.0	12.548	34.884	26.416
40.0	14.466	35.029	26.130	200.0	12.401	34.873	26.437
50.0	14.406	35.019	26.135	300.0	11.887	34.853	26.523
60.0	14.191	34.996	26.164	400.0	11.790	34.844	26.536
70.0	13.938	34.979	26.204	500.0	11.517	34.822	26.573
80.0	13.699	34.962	26.241	600.0	11.210	34.802	26.616
90.0	13.276	34.937	26.309	700.0	11.275	34.803	26.607
100.0	13.096	34.925	26.337				

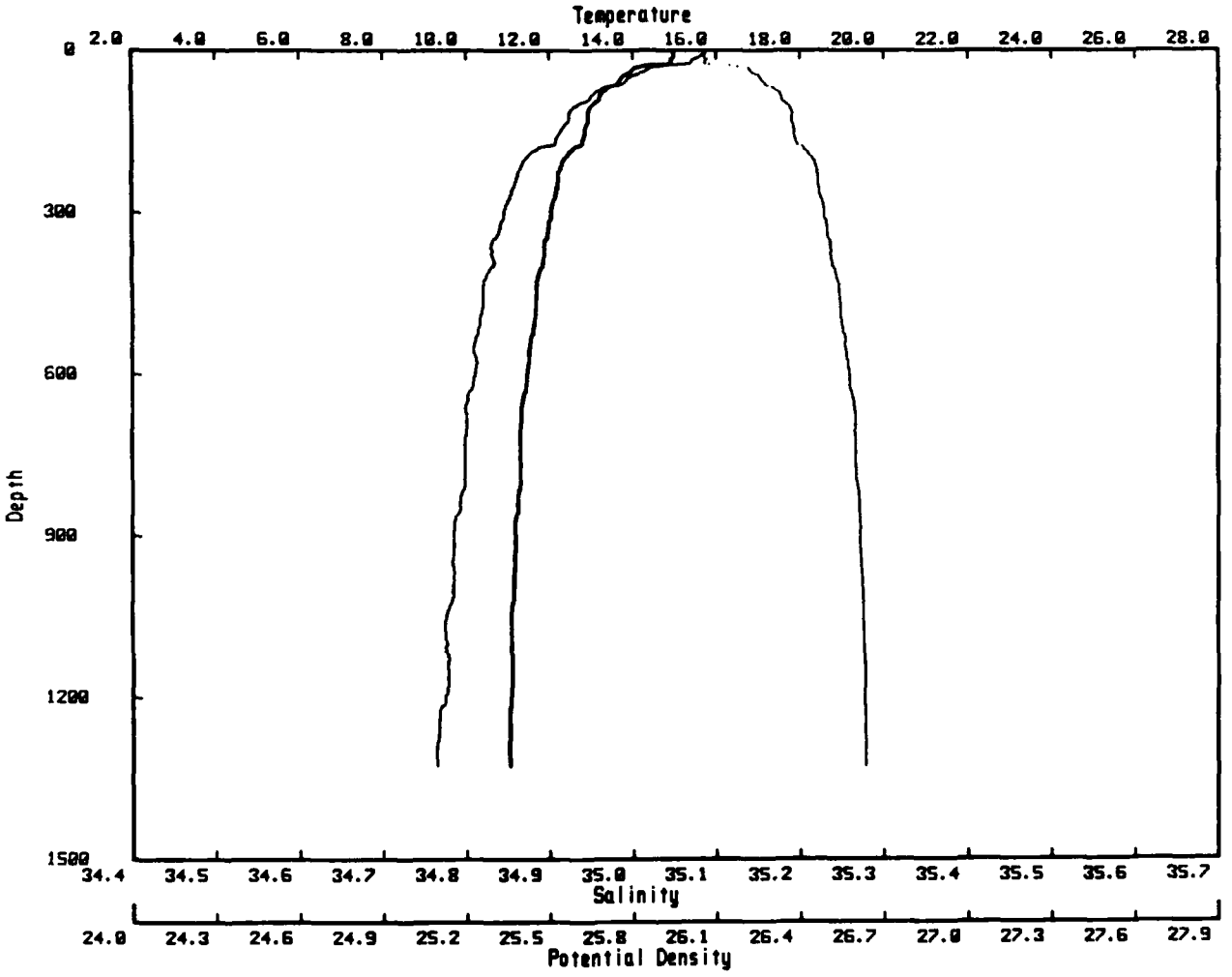
STATION PC7075 : 28 32.0 N 112 51.2 W 17/ 3/85 1144Z 789/ 794m



Day: 76.48 SST: 15.3 Tdry: 15.6 Twet: 13.8 Wspd: 7.1 CTD #: 3
WS10
ANC 18 OCT 85 CH:WD,CD. POS:ANC RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	15.140	35.078	26.019	120.0	13.066	34.931	26.348
10.0	14.823	35.046	26.065	140.0	12.930	34.918	26.366
20.0	14.568	35.025	26.104	160.0	12.723	34.901	26.394
30.0	14.441	35.016	26.125	180.0	12.603	34.890	26.410
40.0	14.115	34.991	26.175	200.0	12.560	34.886	26.416
50.0	13.872	34.967	26.208	300.0	12.124	34.851	26.476
60.0	13.712	34.961	26.237	400.0	11.666	34.818	26.540
70.0	13.699	34.960	26.239	500.0	11.406	34.805	26.580
80.0	13.442	34.945	26.281	600.0	11.370	34.804	26.588
90.0	13.315	34.938	26.302	700.0	11.270	34.797	26.604
100.0	13.172	34.937	26.331				

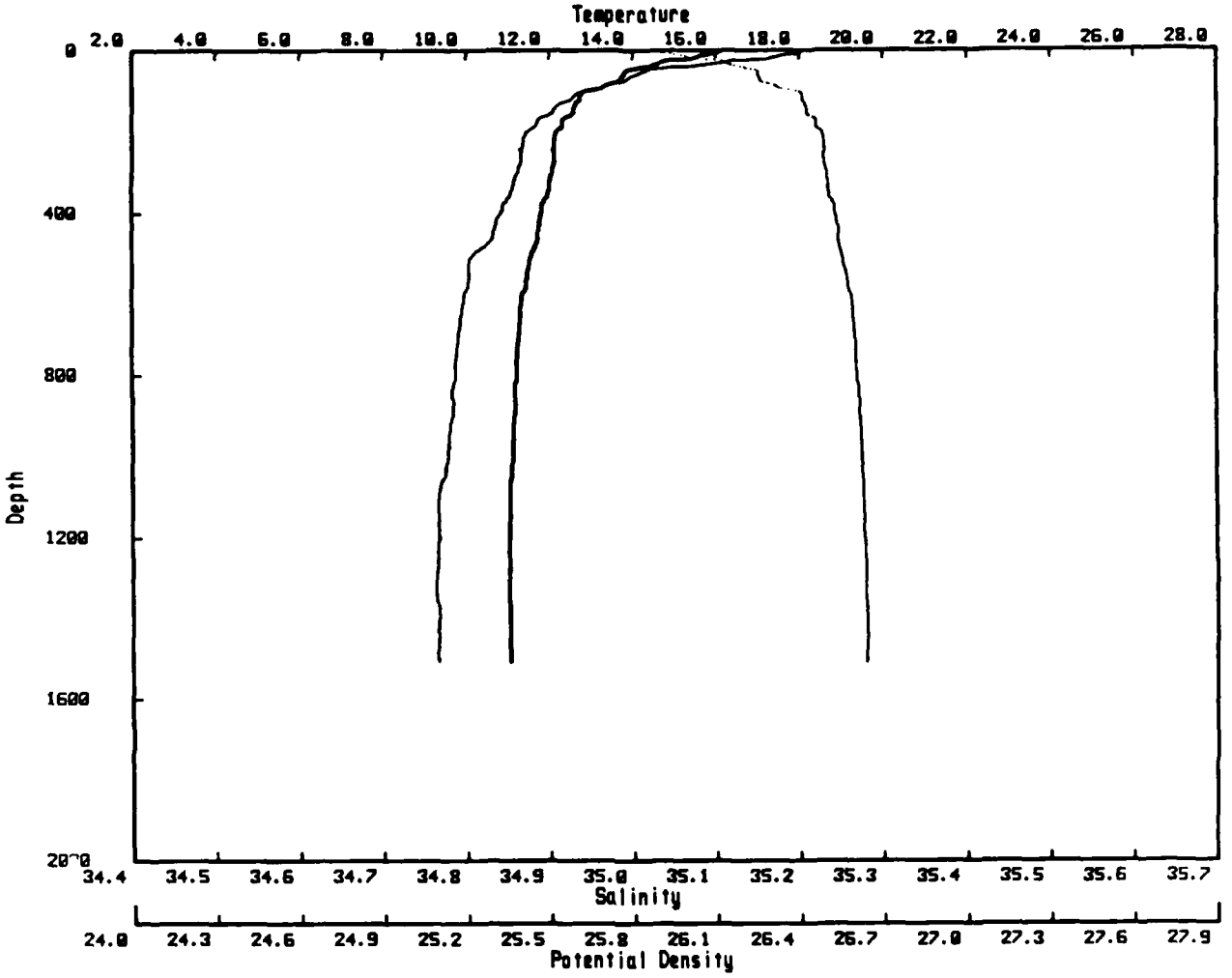
STATION PC7076 : 28 36.0 N 112 56.5 W 17/ 3/85 1335Z 1327/1332m



Day: 76.56 SST: 15.1 Tdry: 15.1 Twet: 13.2 Wspd: 8.0 CTD #: 3
WS9
ANC 17 OCT 85 CH:T,WD,CD. POS:ANC RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	14.971	35.087	26.063	180.0	12.574	34.887	26.413
10.0	14.983	35.081	26.056	200.0	12.351	34.871	26.445
20.0	14.934	35.071	26.060	300.0	12.038	34.846	26.488
30.0	14.241	35.030	26.178	400.0	11.836	34.832	26.519
40.0	13.956	35.014	26.227	500.0	11.629	34.816	26.547
50.0	13.738	34.996	26.259	600.0	11.460	34.810	26.576
60.0	13.640	34.990	26.275	700.0	11.310	34.800	26.599
70.0	13.385	34.965	26.308	800.0	11.292	34.798	26.603
80.0	13.240	34.954	26.329	900.0	11.181	34.785	26.615
90.0	13.195	34.948	26.334	1000.0	11.131	34.783	26.625
100.0	13.037	34.934	26.356	1100.0	11.092	34.777	26.630
120.0	12.918	34.924	26.372	1200.0	11.078	34.775	26.633
140.0	12.878	34.918	26.376	1300.0	11.031	34.764	26.636
160.0	12.820	34.909	26.381				

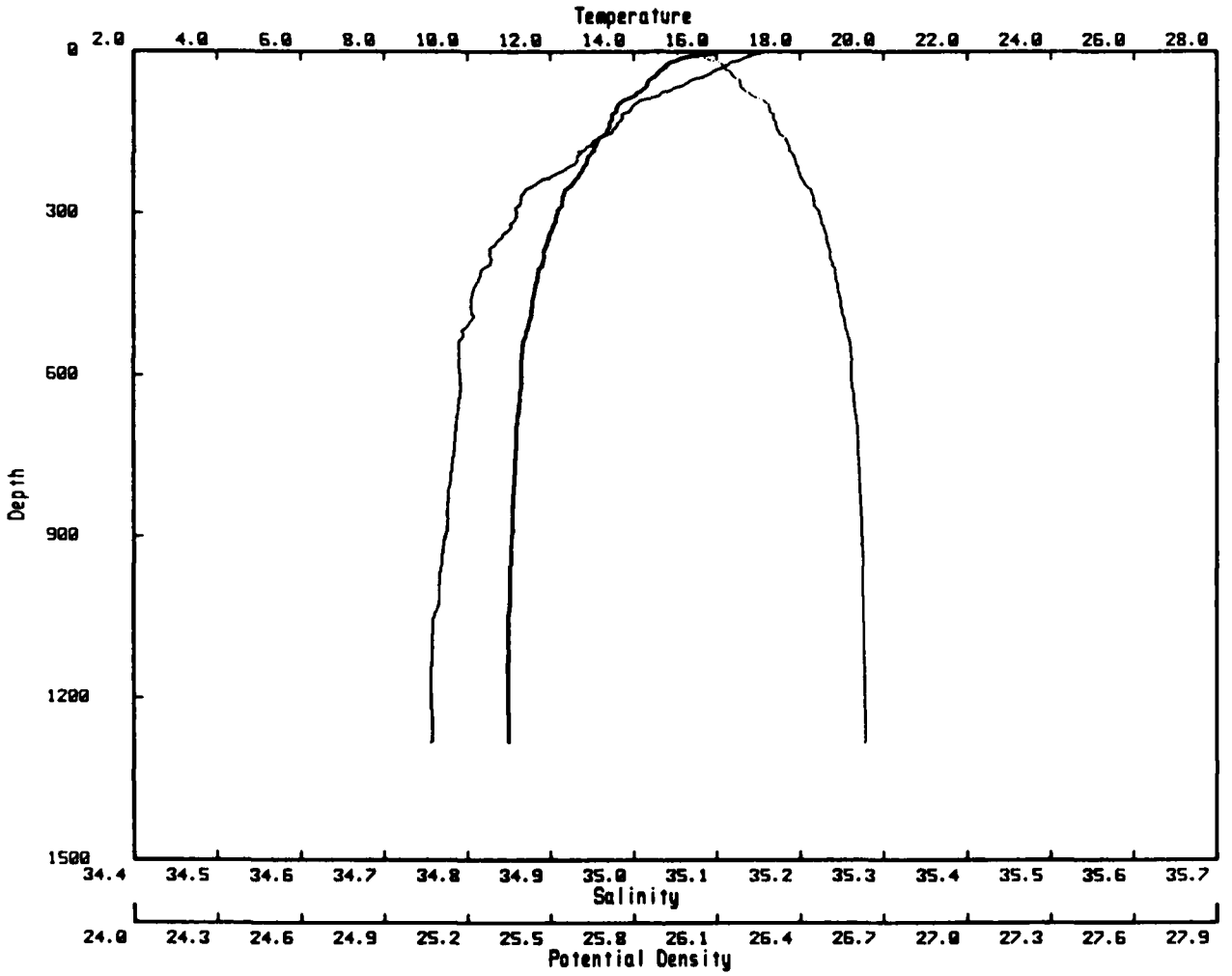
STATION PC7077 : 28 41.9 N 113 .6 W 17/ 3/85 1545Z 1509/1514m



Day: 76.64 SST: 16.4 Tdry: 15.9 Twet: 14.2 Wspd: 7.0 CTD #: 3
WS8 . POSITIONING IS NOT CORRECT
ANC 22 OCT 85 CH:WD,CD,T. POS:CINDY RADAR *** uptrace ***

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.125	35.198	25.889	200.0	12.149	34.872	26.485
10.0	15.824	35.188	25.951	300.0	12.051	34.861	26.498
20.0	15.415	35.164	26.025	400.0	11.808	34.842	26.532
30.0	14.689	35.108	26.142	500.0	11.566	34.809	26.554
40.0	14.298	35.061	26.190	600.0	11.344	34.798	26.589
50.0	13.841	35.017	26.253	700.0	11.266	34.791	26.600
60.0	13.796	35.004	26.253	800.0	11.215	34.787	26.608
70.0	13.724	34.994	26.261	900.0	11.149	34.783	26.620
80.0	13.558	34.981	26.285	1000.0	11.113	34.778	26.625
90.0	13.286	34.963	26.327	1100.0	11.039	34.767	26.632
100.0	12.835	34.941	26.401	1200.0	11.044	34.769	26.635
120.0	12.716	34.925	26.413	1300.0	11.016	34.763	26.638
140.0	12.581	34.907	26.426	1400.0	11.027	34.766	26.640
160.0	12.508	34.898	26.434	1500.0	11.040	34.765	26.640
180.0	12.320	34.885	26.461				

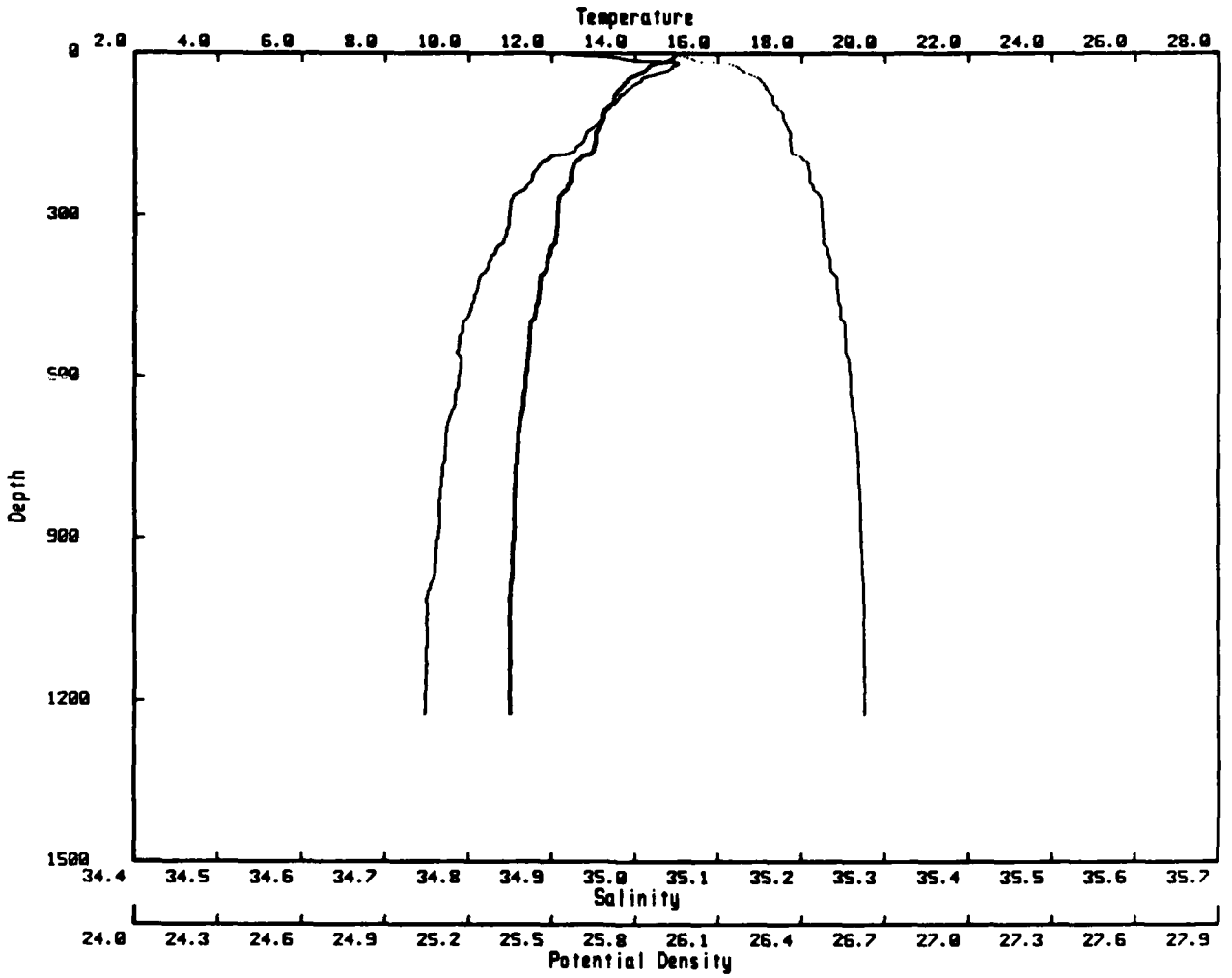
STATION PC7078 : 28 52.2 N 113 11.1 W 17/ 3/85 1802Z 1281/1286m



Day: 76.75 SST: 16.3 Tdry: 16.0 Twet: 13.8 Wspd: 8.8 CTD #: 3
WS7
ANC 11 OCT 85 CH:CD,WD. POS:ANC RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	15.744	35.142	25.933	160.0	13.166	34.958	26.350
10.0	15.290	35.137	26.032	180.0	13.050	34.942	26.361
20.0	14.872	35.116	26.108	200.0	12.894	34.933	26.386
30.0	14.740	35.107	26.130	300.0	12.187	34.860	26.471
40.0	14.599	35.094	26.151	400.0	11.758	34.822	26.525
50.0	14.449	35.076	26.170	500.0	11.496	34.803	26.562
60.0	14.326	35.062	26.186	600.0	11.320	34.792	26.588
70.0	14.223	35.047	26.197	700.0	11.194	34.787	26.610
80.0	14.046	35.032	26.223	800.0	11.139	34.780	26.617
90.0	13.754	35.008	26.266	900.0	11.078	34.773	26.625
100.0	13.613	35.000	26.289	1000.0	11.041	34.767	26.629
120.0	13.480	34.986	26.306	1100.0	10.994	34.758	26.633
140.0	13.412	34.979	26.315	1200.0	10.987	34.757	26.636

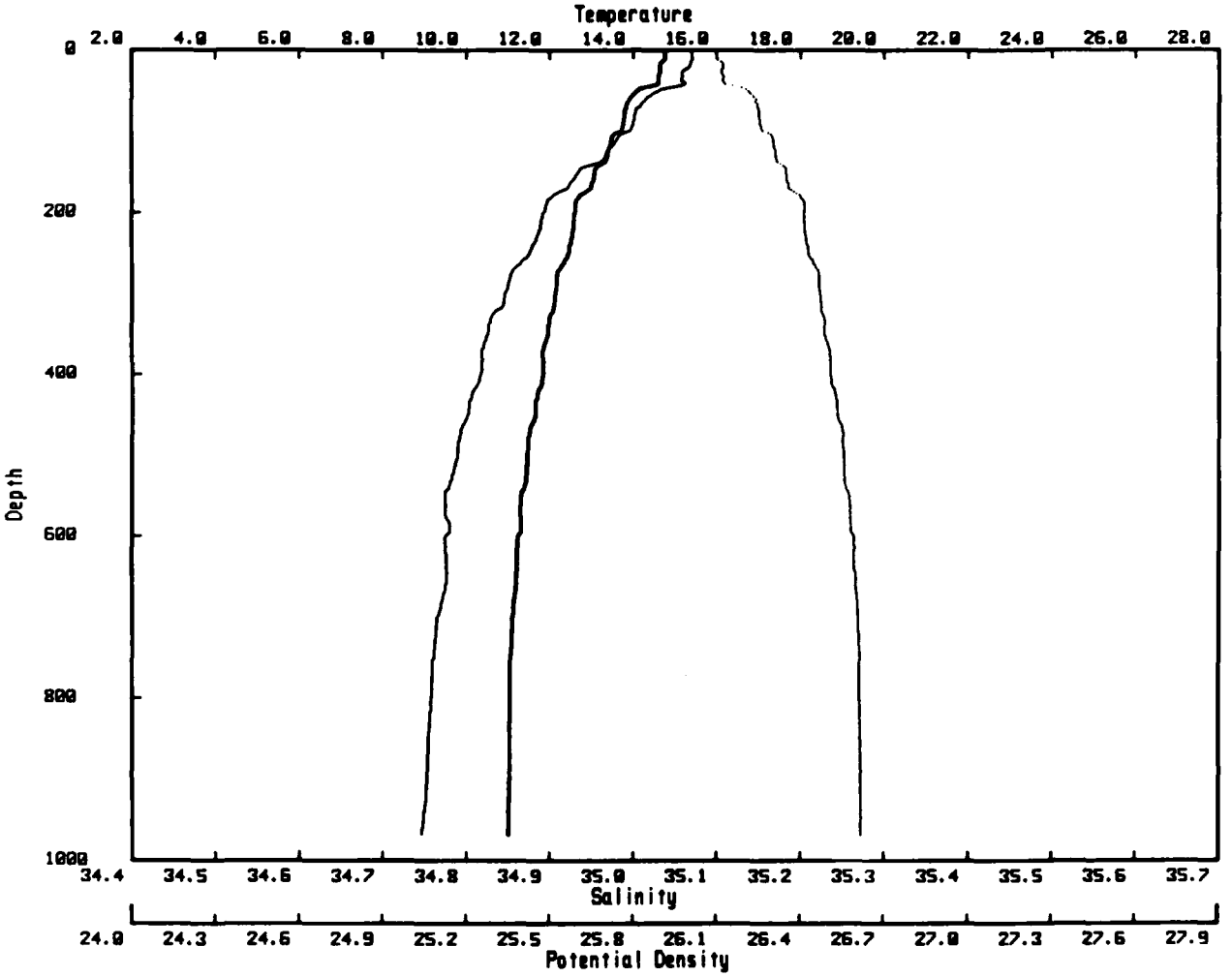
STATION PC7079 : 28 1.5 N 113 16.4 W 17/ 3/85 320Z 1224/1229m



Day: 77.13 SST: 15.2 Tdry: 16.8 Twet: 14.1 Wspd: 3.7 CTD #: 3
WS6.SAT NAV SEEMS OK NOW.
ANC 22 OCT 85 CH:WD,CD. POS:ANC RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	14.969	34.916	25.932	160.0	13.048	34.938	26.358
10.0	14.882	34.984	26.004	180.0	12.982	34.926	26.363
20.0	14.439	35.051	26.152	200.0	12.542	34.888	26.421
30.0	14.270	35.042	26.181	300.0	12.129	34.849	26.473
40.0	14.028	35.024	26.219	400.0	11.864	34.822	26.505
50.0	13.819	35.008	26.251	500.0	11.492	34.794	26.556
60.0	13.687	34.996	26.269	600.0	11.365	34.788	26.577
70.0	13.590	34.989	26.284	700.0	11.211	34.774	26.597
80.0	13.502	34.982	26.297	800.0	11.129	34.768	26.609
90.0	13.486	34.978	26.298	900.0	11.085	34.763	26.616
100.0	13.368	34.967	26.314	1000.0	10.996	34.751	26.625
120.0	13.233	34.959	26.336	1100.0	10.996	34.750	26.626
140.0	13.102	34.946	26.353	1200.0	10.992	34.748	26.628

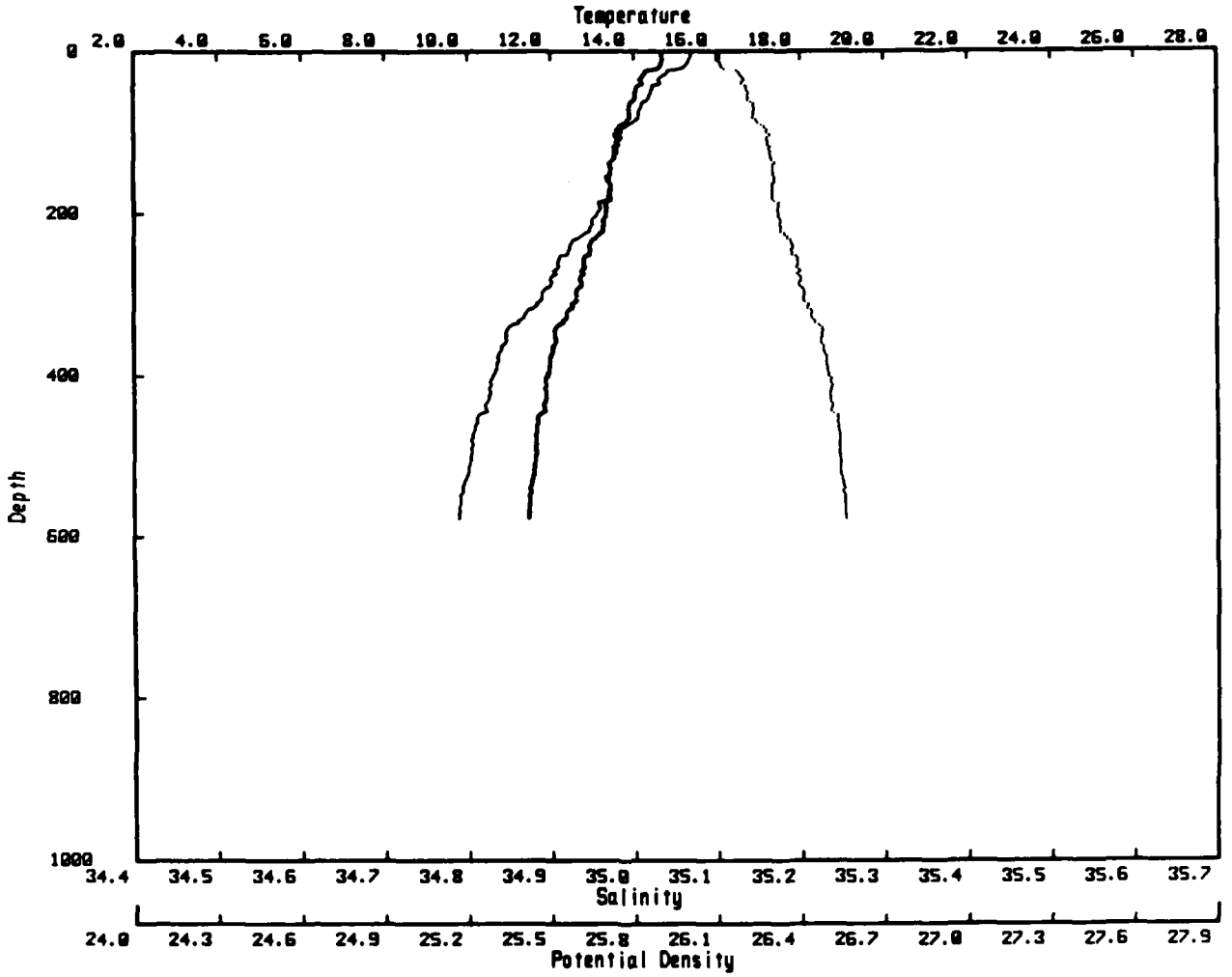
STATION PC7080 : 29 9.2 N 113 24.1 W 17/ 3/85 543Z 967/ 972m



Day: 77.23 SST: 15.0 Tdry: 16.0 Twet: 14.0 Wspd: 2.2 CTD #: 3
WS-5.
ANC 22 OCT 85 CH:WD,CD,T. POS:ANC RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	14.756	35.069	26.097	140.0	13.243	34.953	26.330
10.0	14.752	35.071	26.099	160.0	13.040	34.928	26.352
20.0	14.635	35.067	26.122	180.0	12.696	34.902	26.401
30.0	14.611	35.059	26.121	200.0	12.595	34.892	26.414
40.0	14.604	35.062	26.125	300.0	12.129	34.846	26.471
50.0	14.087	35.030	26.212	400.0	11.838	34.817	26.506
60.0	13.897	35.015	26.240	500.0	11.467	34.789	26.556
70.0	13.843	35.008	26.247	600.0	11.231	34.774	26.590
80.0	13.795	35.002	26.252	700.0	11.106	34.765	26.609
90.0	13.780	35.000	26.254	800.0	11.061	34.758	26.614
100.0	13.698	34.994	26.267	900.0	11.035	34.753	26.617
120.0	13.430	34.973	26.306				

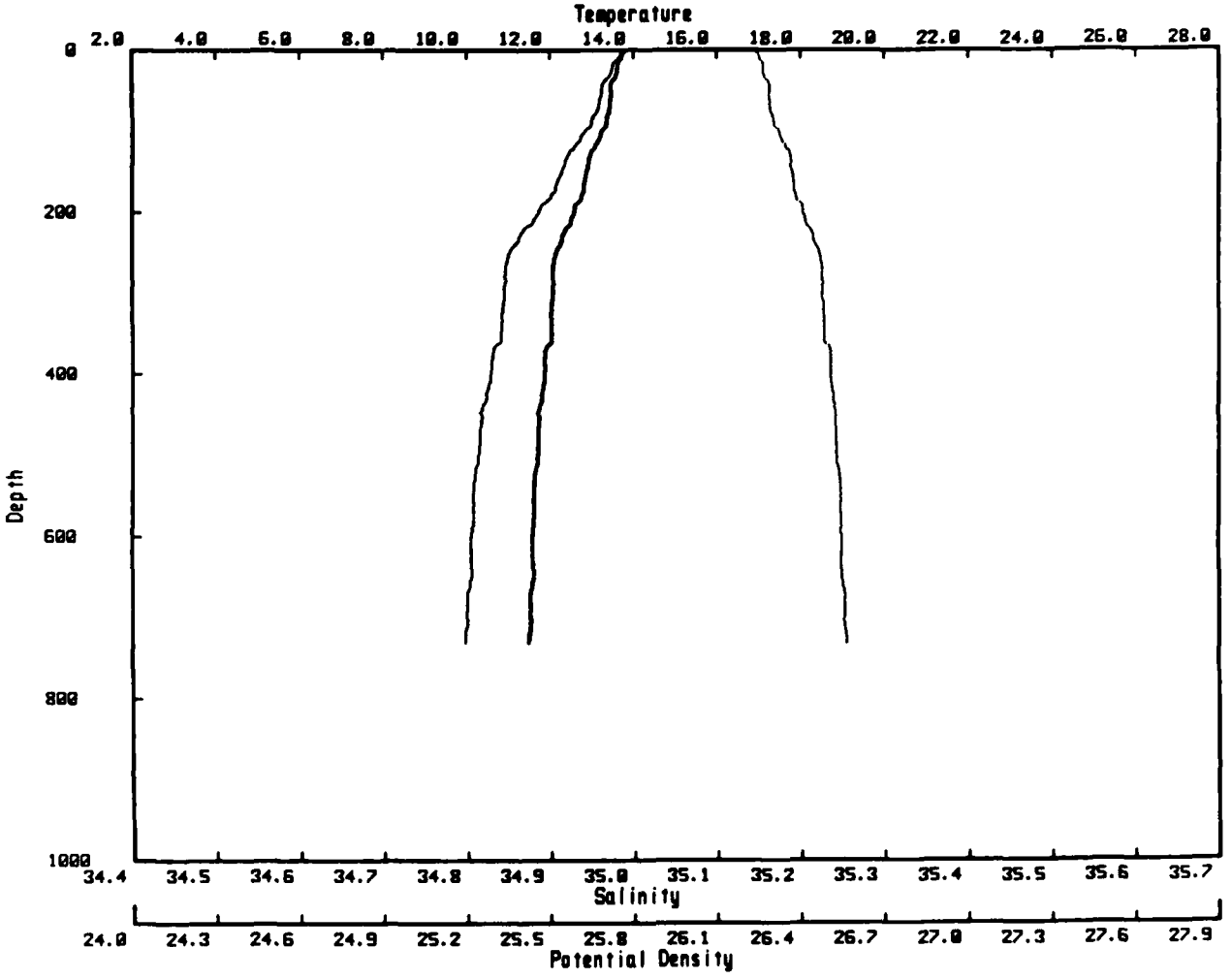
STATION PC7081 : 29 15.2 N 113 33.8 W 18/ 3/85 732Z 577/ 582m



Day: 77.31 SST: 15.0 Tdry: 16.0 Twet: 13.7 Wspd: 5.7 CTD #: 3
WS4
ANC 11 OCT 85 CH:CD,WD. POS:ANC RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	14.685	35.070	26.113	100.0	13.609	34.986	26.279
10.0	14.694	35.067	26.109	120.0	13.552	34.980	26.287
20.0	14.623	35.061	26.120	140.0	13.446	34.973	26.304
30.0	14.214	35.034	26.187	160.0	13.404	34.968	26.309
40.0	14.205	35.032	26.188	180.0	13.444	34.969	26.302
50.0	14.044	35.021	26.214	200.0	13.307	34.955	26.320
60.0	14.035	35.017	26.213	300.0	12.599	34.889	26.413
70.0	13.894	35.008	26.236	400.0	11.925	34.830	26.500
80.0	13.903	35.006	26.233	500.0	11.610	34.803	26.541
90.0	13.731	34.994	26.260				

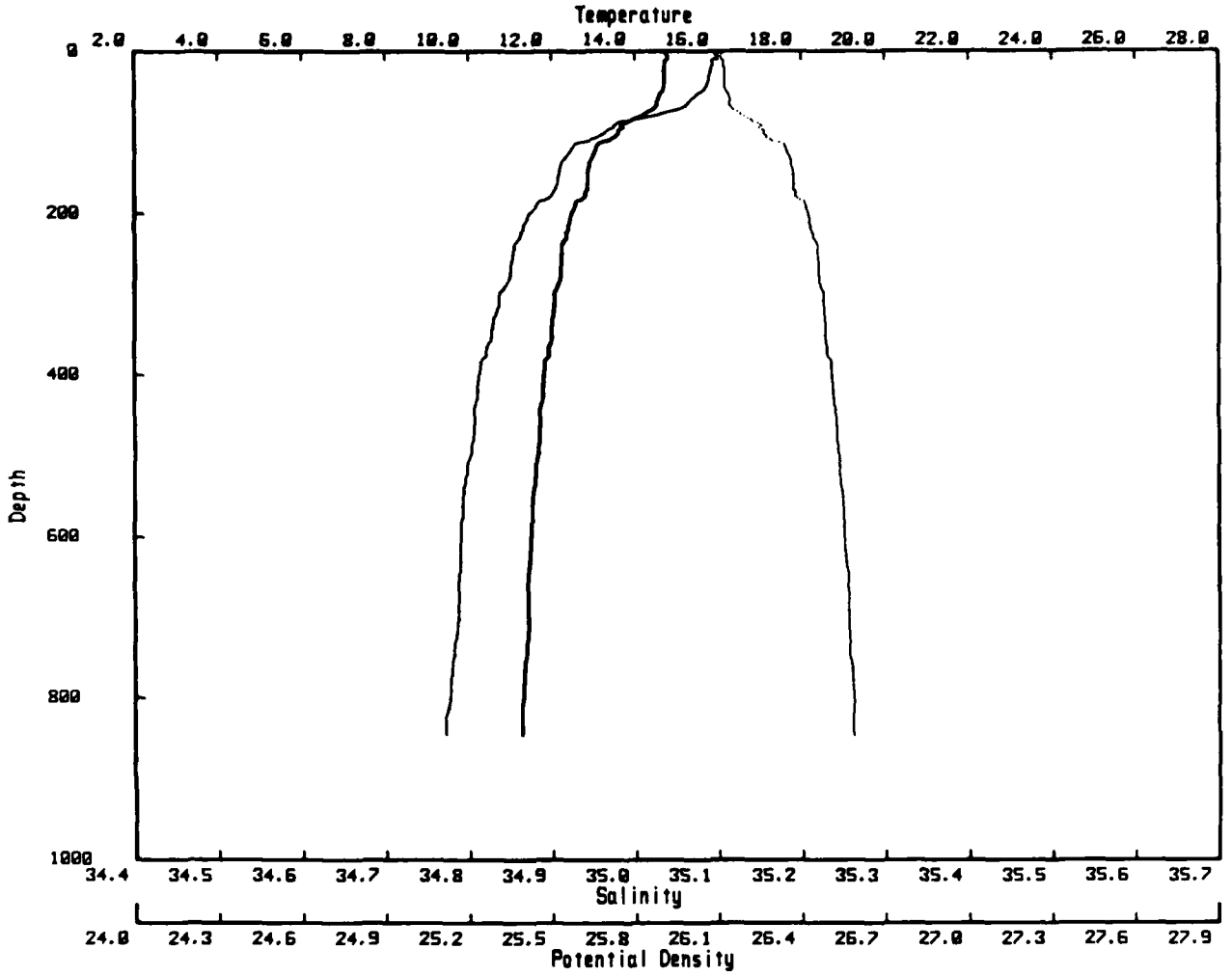
STATION PC7082 : 29 22.2 N 113 41.6 W 18/ 3/85 910Z 730/ 735m



Day: 77.38 SST: 14.0 Tdry: 15.9 Twet: 13.6 Wspd: 4.8 CTD #: 3
WS3
ANC 11 OCT 85

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	13.794	34.991	26.242	120.0	13.063	34.928	26.346
10.0	13.706	34.982	26.253	140.0	12.924	34.918	26.367
20.0	13.622	34.976	26.266	160.0	12.848	34.910	26.376
30.0	13.590	34.972	26.270	180.0	12.768	34.902	26.387
40.0	13.478	34.964	26.287	200.0	12.591	34.887	26.411
50.0	13.463	34.963	26.290	300.0	12.077	34.846	26.481
60.0	13.452	34.960	26.290	400.0	11.869	34.829	26.510
70.0	13.436	34.958	26.292	500.0	11.712	34.814	26.530
80.0	13.375	34.953	26.301	600.0	11.590	34.806	26.549
90.0	13.346	34.950	26.305	700.0	11.528	34.800	26.559
100.0	13.229	34.941	26.322				

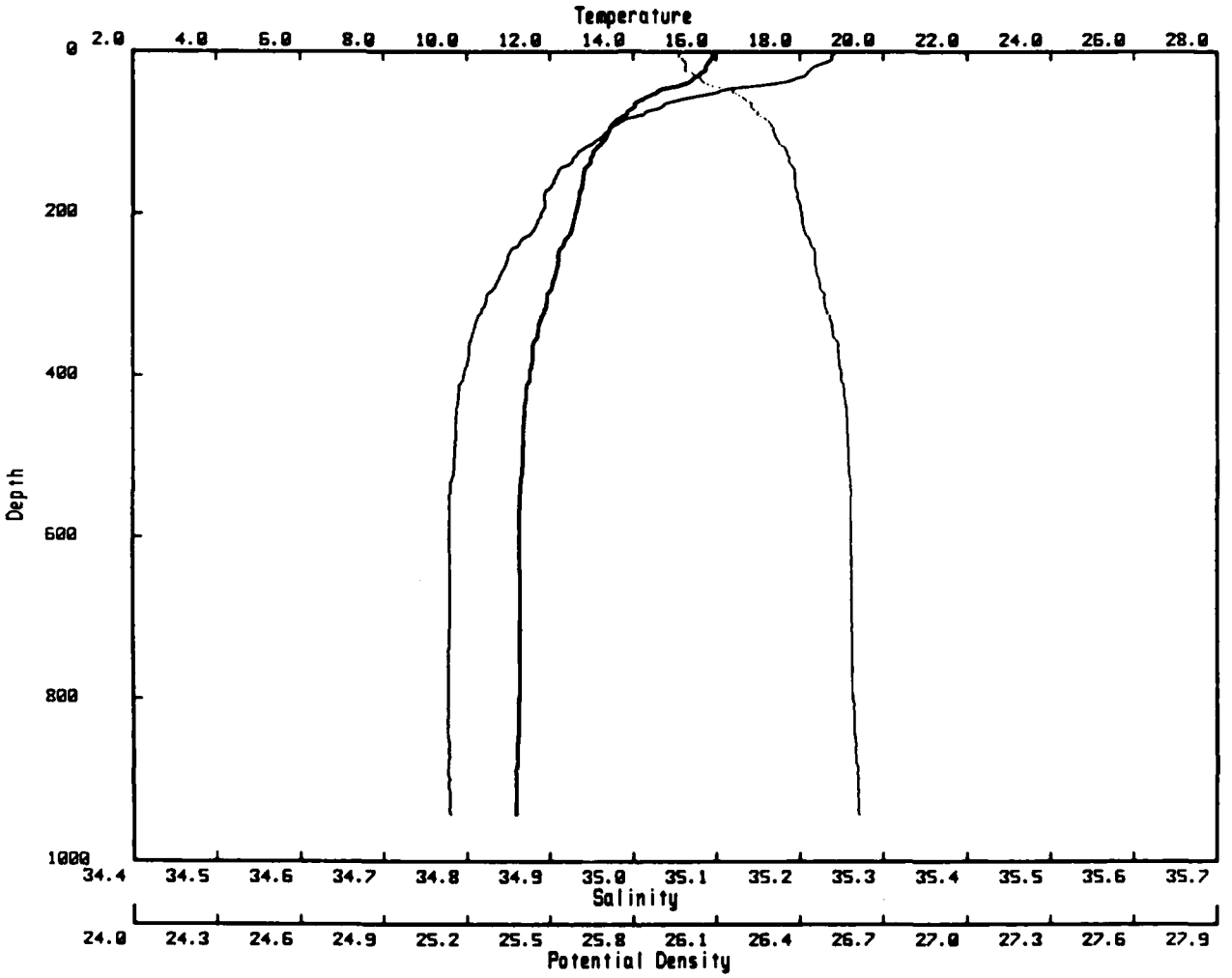
STATION PC7083 : 29 29.2 N 113 48.5 W 18/ 3/85 1055Z 852/ 857m



Day: 77.44 SST: 14.8 Tdry: 16.0 Twet: 13.2 Wspd: 9.8 CTD #: 3
WS2
ANC 17 OCT 85 CH:WD,CD. POS:ANC RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	14.743	35.097	26.121	120.0	13.054	34.923	26.344
10.0	14.755	35.094	26.116	140.0	12.907	34.911	26.365
20.0	14.715	35.092	26.124	160.0	12.858	34.907	26.372
30.0	14.710	35.090	26.124	180.0	12.752	34.896	26.385
40.0	14.703	35.087	26.123	200.0	12.459	34.872	26.425
50.0	14.630	35.079	26.133	300.0	12.050	34.837	26.479
60.0	14.543	35.067	26.143	400.0	11.801	34.812	26.510
70.0	14.456	35.056	26.154	500.0	11.635	34.801	26.535
80.0	14.134	35.019	26.194	600.0	11.498	34.791	26.555
90.0	13.701	34.977	26.253	700.0	11.420	34.787	26.568
100.0	13.594	34.964	26.265	800.0	11.294	34.776	26.585

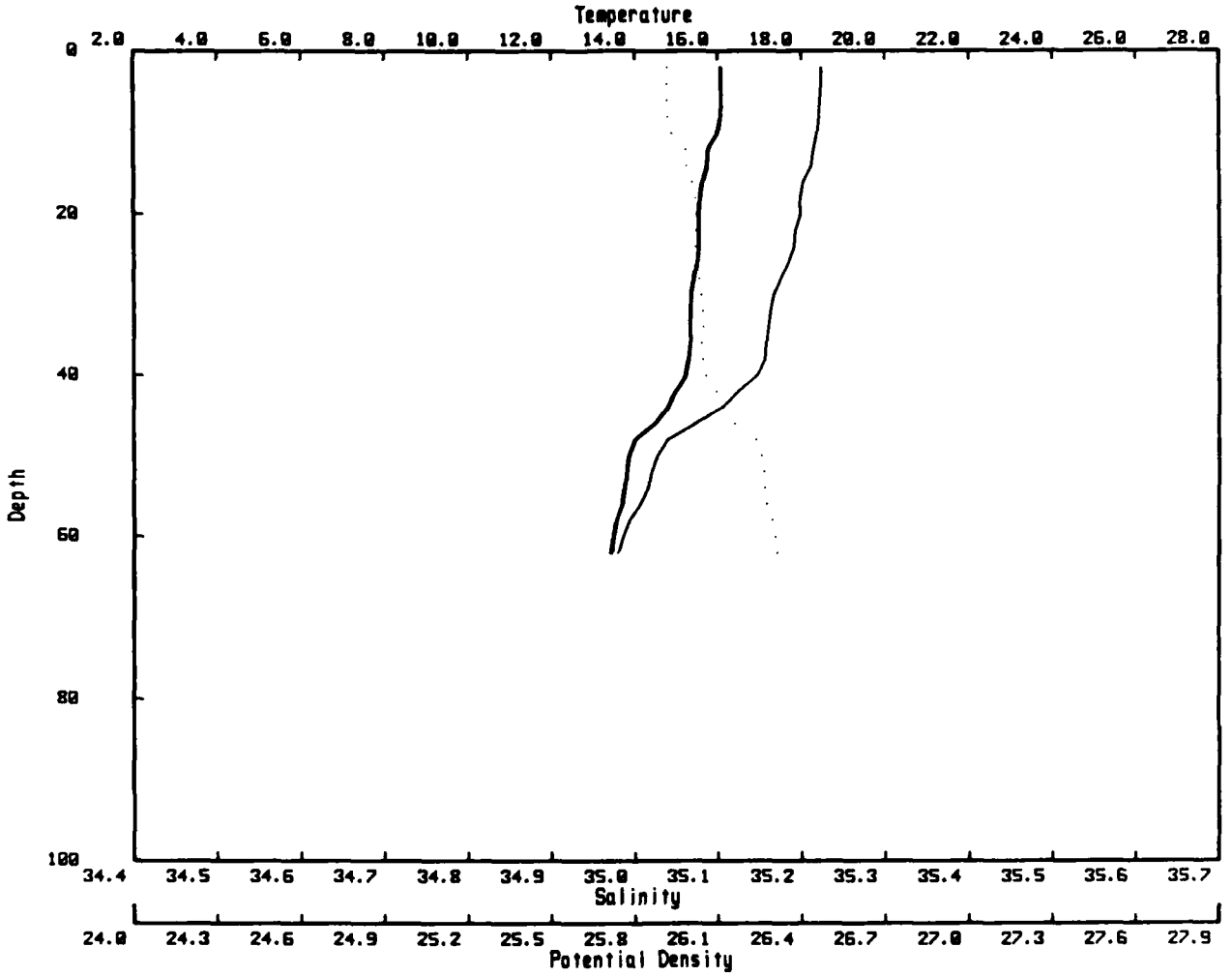
STATION PC7084 : 29 37.8 N 113 57.0 W 18/ 3/85 1248Z 940/ 945m



Day: 77.52 SST: 16.1 Tdry: 16.6 Twet: 14.1 Wspd: 8.6 CTD #: 3
WS1
ANC 22 OCT 85 CH:WD,CD,T. POS:CINDY RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	15.925	35.242	25.969	140.0	12.926	34.922	26.370
10.0	15.858	35.238	25.981	160.0	12.791	34.905	26.384
20.0	15.746	35.215	25.989	180.0	12.701	34.893	26.393
30.0	15.558	35.205	26.025	200.0	12.612	34.889	26.408
40.0	15.216	35.164	26.070	300.0	11.940	34.825	26.491
50.0	14.579	35.101	26.161	400.0	11.521	34.796	26.549
60.0	14.188	35.054	26.209	500.0	11.344	34.786	26.577
70.0	13.997	35.030	26.231	600.0	11.278	34.779	26.586
80.0	13.771	35.005	26.260	700.0	11.288	34.780	26.587
90.0	13.484	34.979	26.299	800.0	11.267	34.778	26.592
100.0	13.405	34.968	26.307	900.0	11.186	34.779	26.610
120.0	13.099	34.940	26.348				

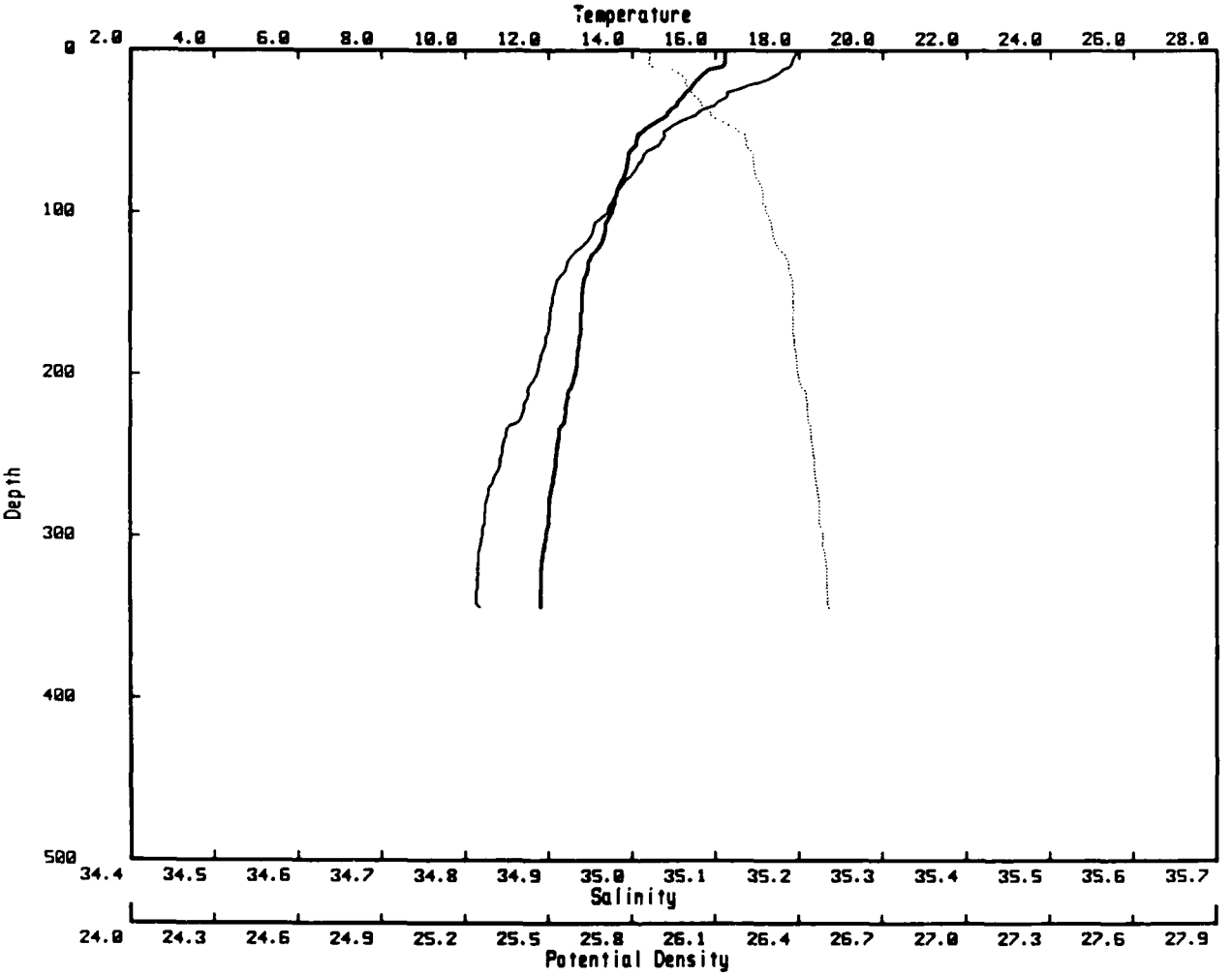
STATION PC7085 : 29 37.5 N 114 3.8 W 18/ 3/85 1432Z 66/ 75m



Day: 77.60 SST: 16.4 Tdry: 19.8 Twet: 11.9 Wspd: 9.5 CTD #: 3
NG2-26
ANC 11 OCT 85 CH:WD,CD. POS:ANC RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.084	35.225	25.919	40.0	15.219	35.147	26.056
10.0	15.993	35.219	25.936	50.0	13.867	35.027	26.256
20.0	15.539	35.199	26.024	60.0	13.480	34.986	26.304
30.0	15.355	35.166	26.040				

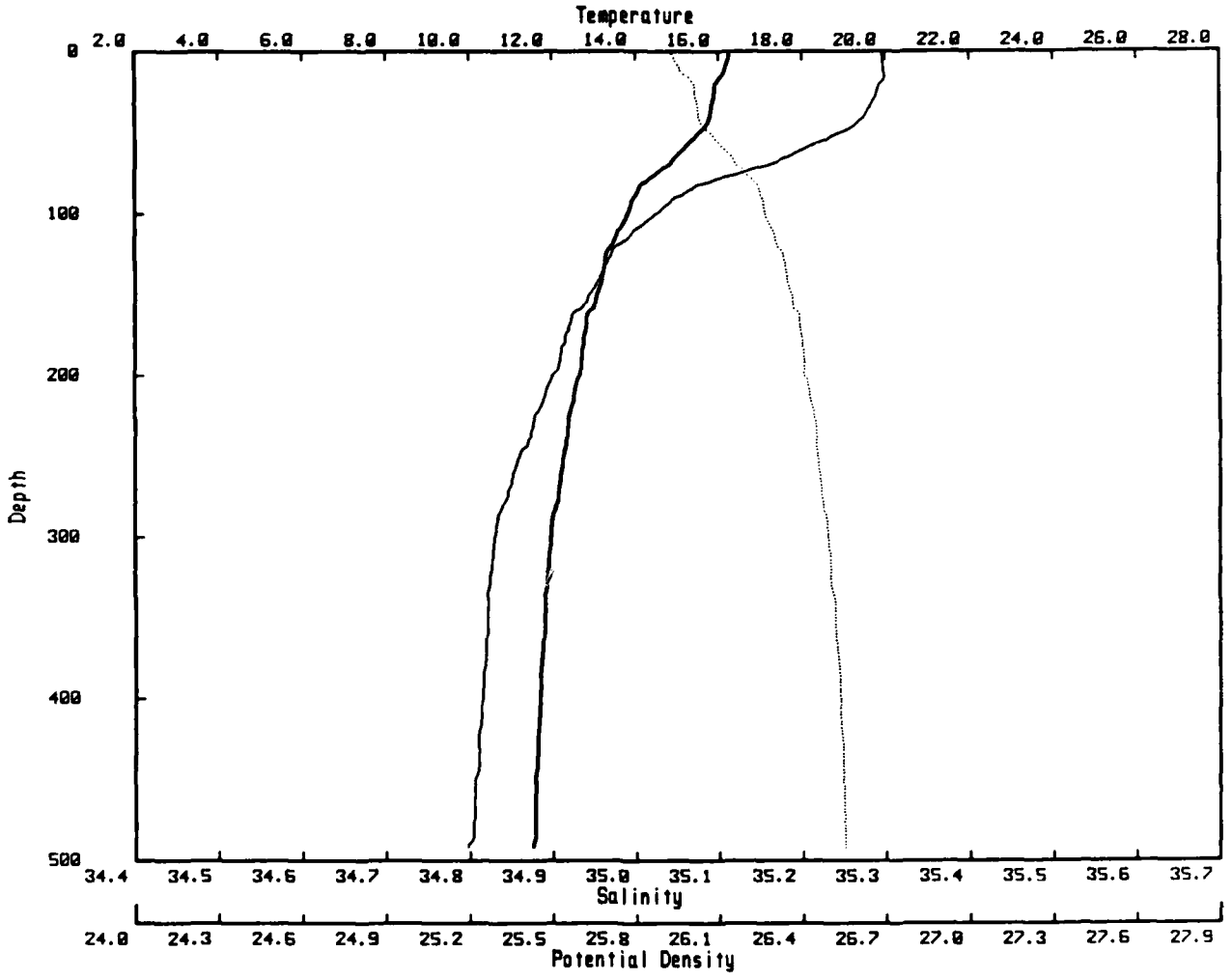
STATION PC7086 : 29 46.6 N 114 6.4 W 18/ 3/85 1537Z 343/ 348m



Day: 77.64 SST: 19.5 Tdry: 12.9 Twet: 12.9 Wspd: 1.1 CTD #: 3
NG2-25,MISTAKE ,WET=19.12,DRY=12.86,SST=15.83
ANC 11 OCT 85 CH:WD,CD. POS:ANC RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.228	35.197	25.865	90.0	13.611	34.979	26.273
10.0	16.166	35.189	25.873	100.0	13.517	34.970	26.286
20.0	15.509	35.151	25.994	120.0	13.237	34.942	26.322
30.0	15.168	35.110	26.039	140.0	12.868	34.913	26.374
40.0	14.840	35.076	26.085	160.0	12.799	34.903	26.381
50.0	14.242	35.038	26.185	180.0	12.751	34.897	26.386
60.0	14.046	35.026	26.217	200.0	12.649	34.886	26.398
70.0	13.882	35.008	26.238	300.0	11.946	34.821	26.487
80.0	13.743	34.992	26.255				

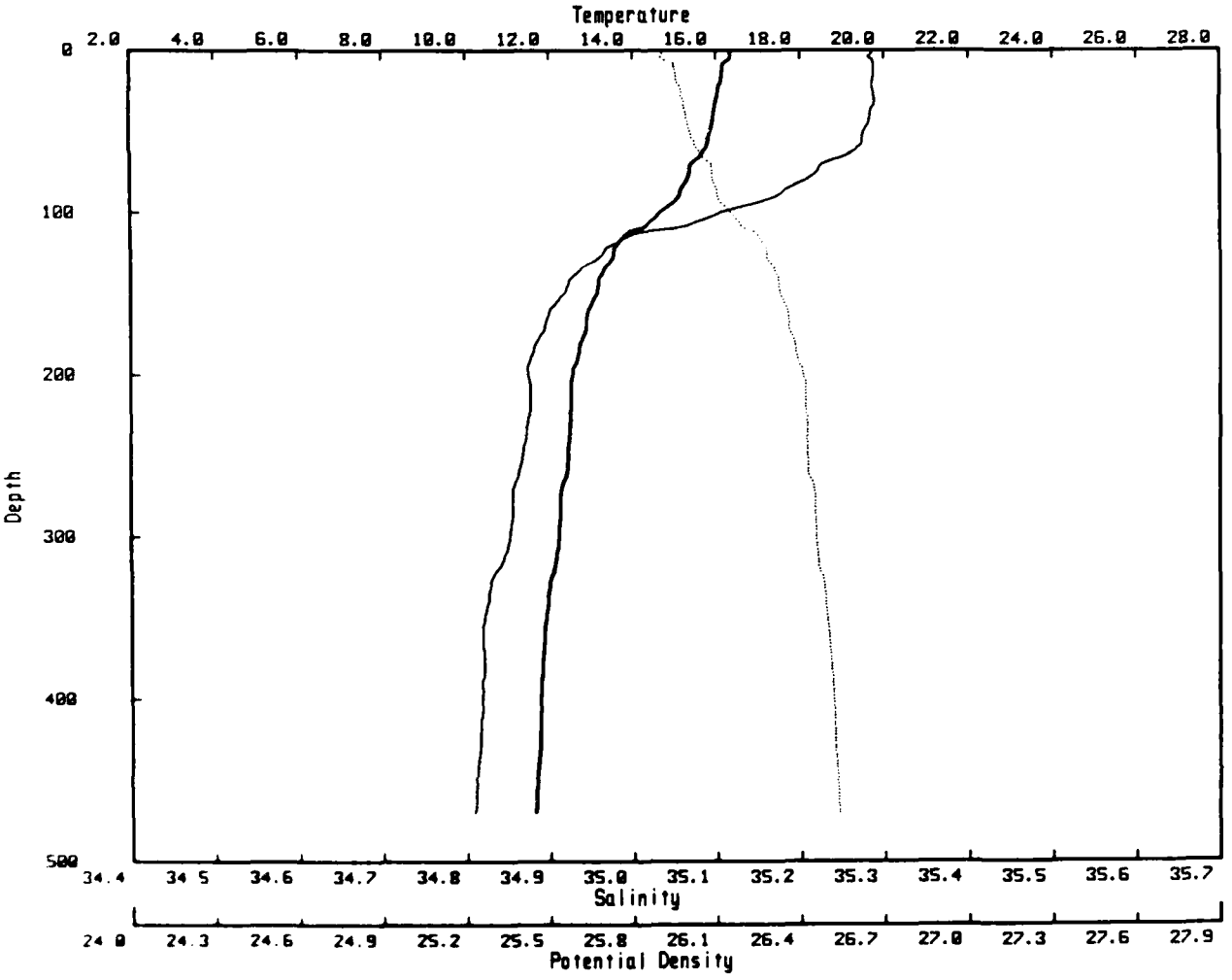
STATION PC7087 : 29 52.7 N 114 5.5 W 18/ 3/85 1642Z 492/ 497m



Day: 77.68 SST: 16.5 Tdry: 19.7 Twet: 12.9 Wspd: 3.3 CTD #: 3
NG2-24
ANC 13 OCT 85 CH:WD,CD. POS:ANC RADAR *** uptrace ***

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.259	35.296	25.933	90.0	13.941	35.046	26.256
10.0	16.161	35.298	25.958	100.0	13.804	35.023	26.267
20.0	15.915	35.293	26.011	120.0	13.404	34.976	26.314
30.0	15.852	35.285	26.020	140.0	13.177	34.956	26.345
40.0	15.783	35.274	26.027	160.0	12.874	34.927	26.384
50.0	15.496	35.244	26.069	180.0	12.745	34.914	26.401
60.0	15.131	35.202	26.119	200.0	12.642	34.900	26.411
70.0	14.775	35.158	26.163	300.0	11.952	34.830	26.492
80.0	14.232	35.090	26.228	400.0	11.680	34.815	26.535

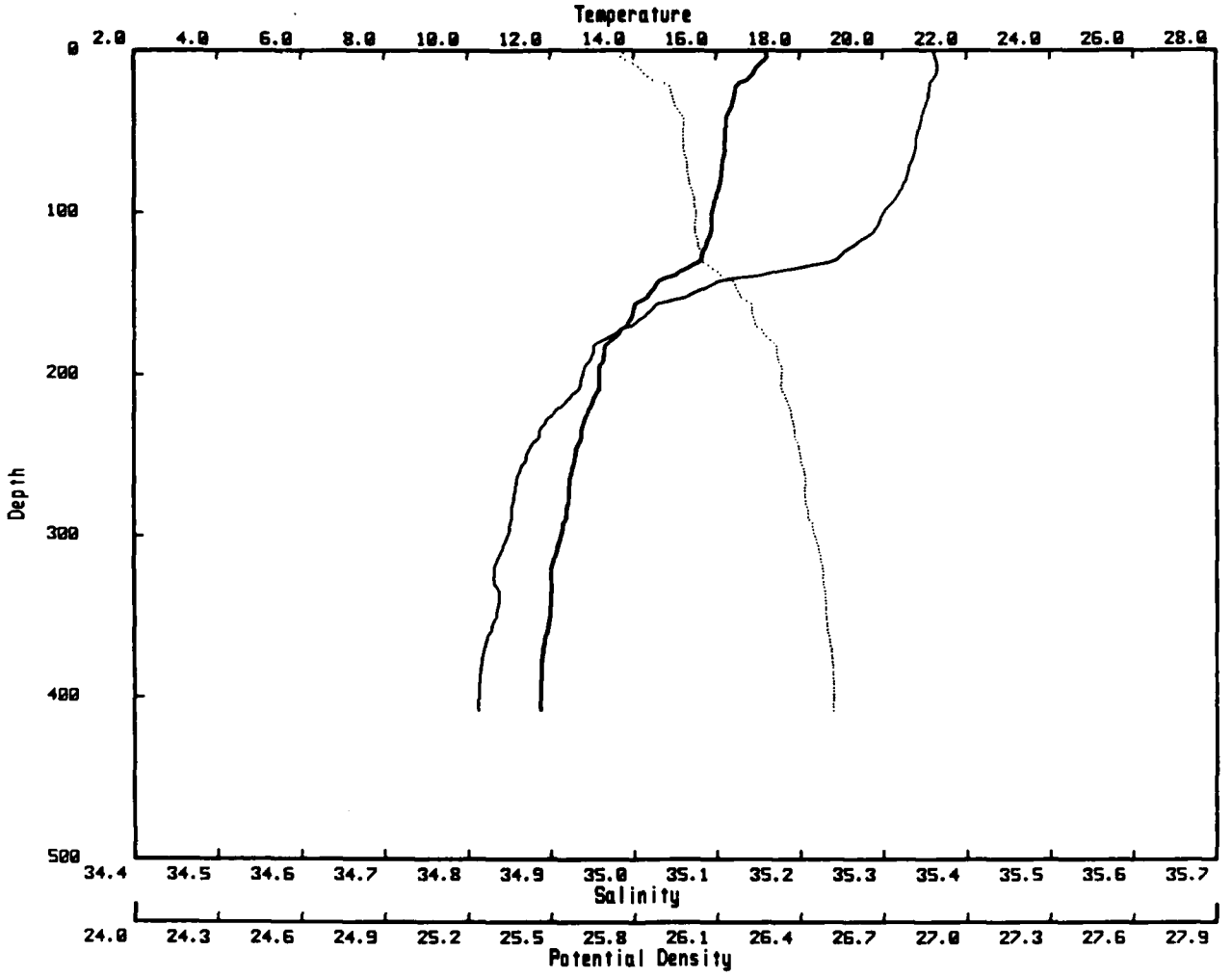
STATION PC7088 : 29 57.0 N 114 3.9 W 18/ 3/85 1750Z 469/ 474m



Day 77 73 SST: 1.4 Tdry: 18.7 Twet: 14.3 Wspd: 7.2 CTD #: 3
NG2-23
ANC 23 OCT 85 CH:WD,CD,T. POS:CINDY RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.343	35.286	25.906	90.0	15.101	35.172	26.103
10.0	16.159	35.288	25.951	100.0	14.642	35.105	26.152
20.0	16.108	35.286	25.961	120.0	13.611	34.975	26.271
30.0	16.027	35.290	25.983	140.0	13.183	34.926	26.321
40.0	15.956	35.285	25.996	160.0	12.924	34.900	26.354
50.0	15.876	35.277	26.009	180.0	12.735	34.884	26.379
60.0	15.759	35.269	26.029	200.0	12.547	34.874	26.409
70.0	15.386	35.227	26.082	300.0	12.225	34.852	26.457
80.0	15.295	35.207	26.087	400.0	11.781	34.819	26.519

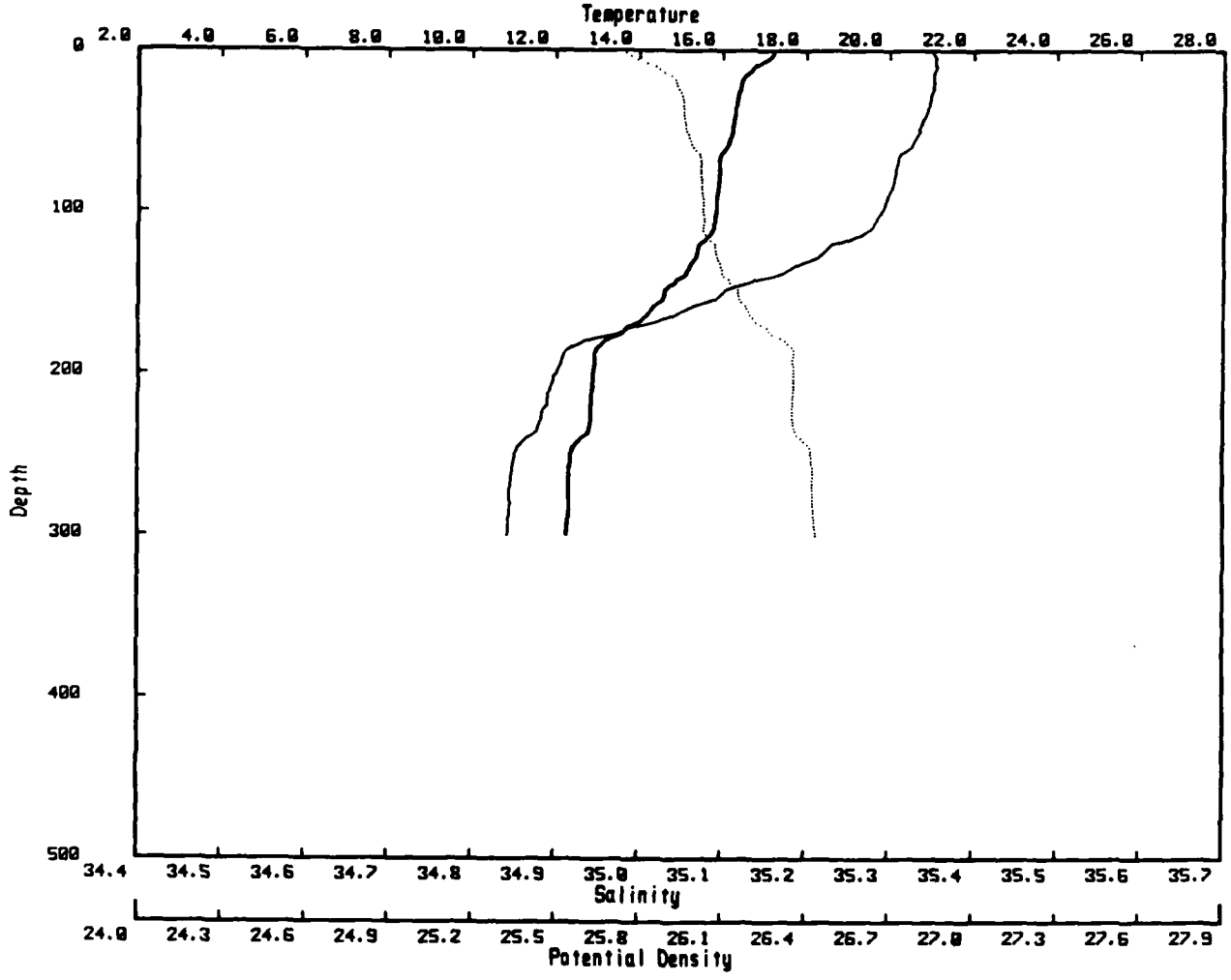
STATION PC7089 : 30 6.0 N 113 57.2 W 18/ 3/85 1933Z 408/ 413m



Day: 77.81 SST: 17.3 Tdry: 18.5 Twet: 15.0 Wspd: 12.2 CTD #: 3
NG2-22. WAKE UP.
ANC 13 OCT 85 CH:WD,CD. POS:SHL/OMEGA

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	17.191	35.361	25.763	90.0	15.975	35.315	26.017
10.0	16.984	35.366	25.817	100.0	15.885	35.300	26.026
20.0	16.549	35.357	25.913	120.0	15.734	35.264	26.033
30.0	16.409	35.354	25.944	140.0	14.740	35.122	26.145
40.0	16.244	35.346	25.977	160.0	13.997	35.021	26.227
50.0	16.217	35.342	25.980	180.0	13.381	34.957	26.306
60.0	16.205	35.339	25.981	200.0	13.172	34.938	26.334
70.0	16.134	35.332	25.992	300.0	12.227	34.847	26.453
80.0	16.091	35.327	25.999	400.0	11.752	34.813	26.520

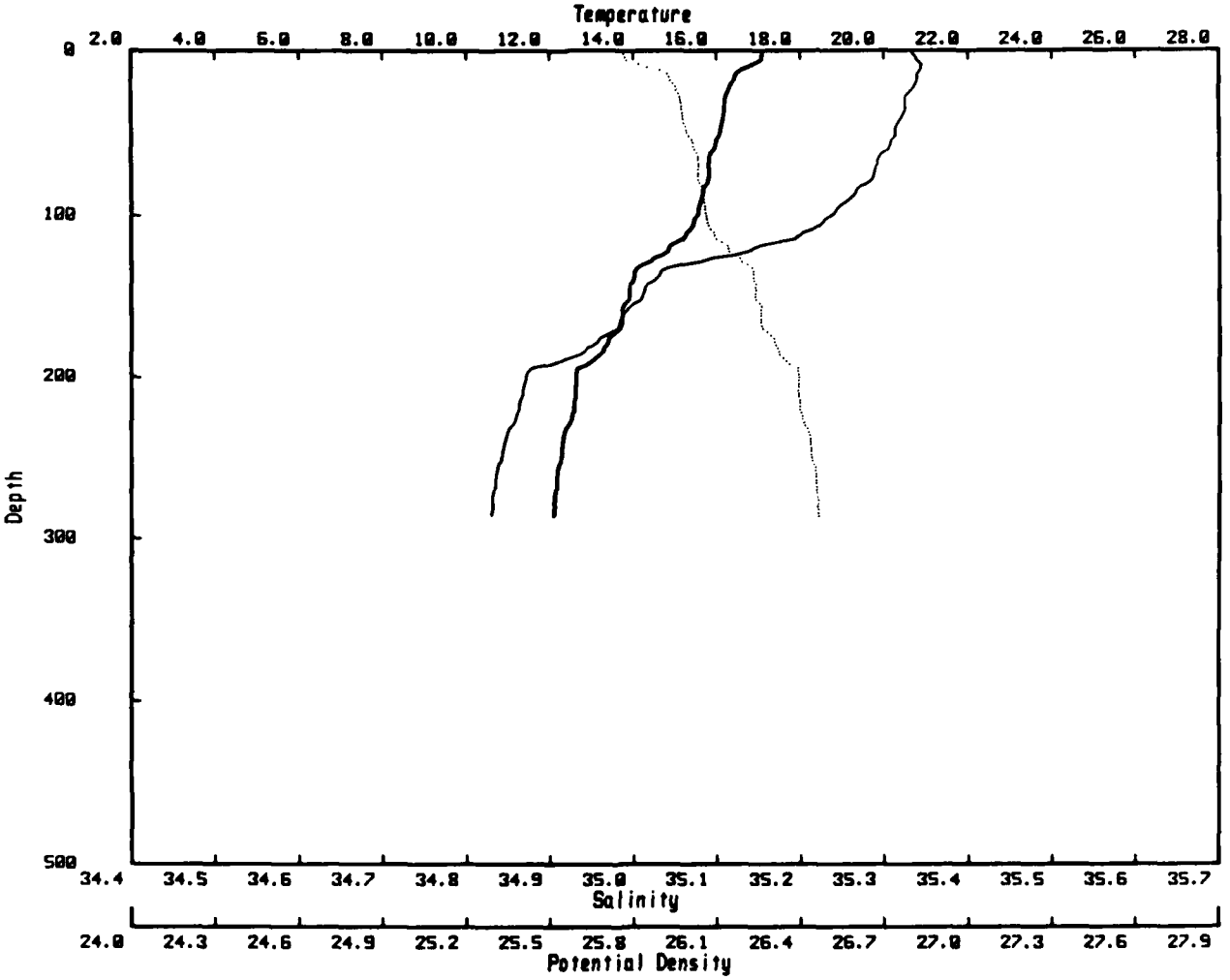
STATION PC7090 : 29 14.9 N 113 55.4 W 18/ 3/85 2058Z 299/ 304m



Day: 77.86 SST: 17.4 Tdry: 19.1 Twet: 15.5 Wspd: 11.4 CTD #: 3
NG2-21.TOOK US A LONG TIME BUT HERE WE GO.
ANC 14 OCT 85 CH:WD,CD. POS:SHL/OMEGA

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	17.214	35.352	25.751	90.0	15.868	35.298	26.028
10.0	16.774	35.356	25.859	100.0	15.839	35.290	26.029
20.0	16.449	35.353	25.934	120.0	15.448	35.232	26.073
30.0	16.341	35.348	25.955	140.0	15.056	35.161	26.106
40.0	16.298	35.343	25.962	160.0	14.314	35.059	26.189
50.0	16.239	35.336	25.971	180.0	13.188	34.935	26.328
60.0	16.096	35.325	25.995	200.0	12.907	34.901	26.359
70.0	15.924	35.309	26.023	300.0	12.279	34.843	26.440
80.0	15.911	35.305	26.023				

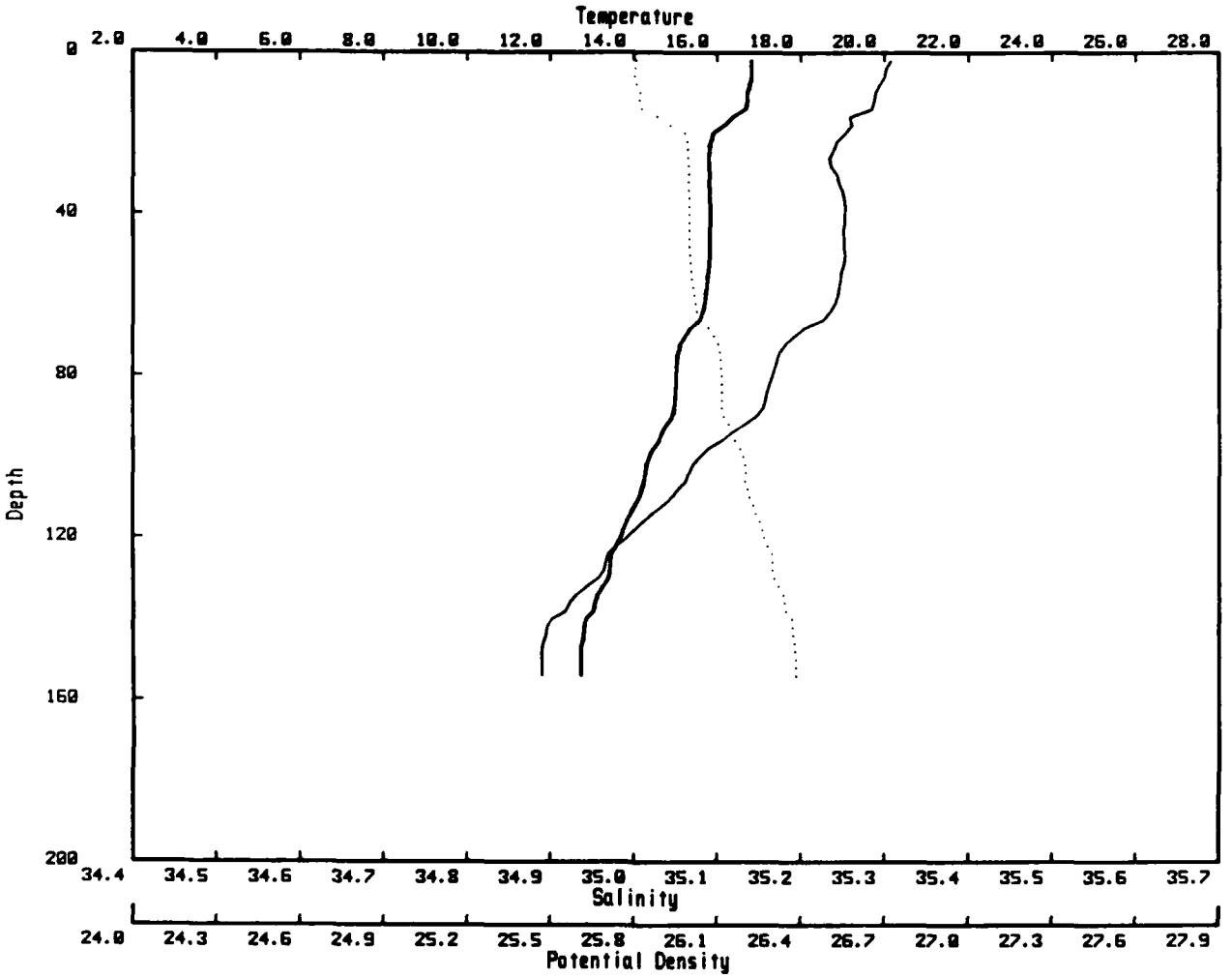
STATION PC7091 : 30 20.6 N 113 51.5 W 18/ 3/85 2219Z 287/ 292m



Day: 77.92 SST: 17.4 Tdry: 20.6 Twet: 15.7 Wspd: 14.2 CTD #: 3
NG2-20.ANDIAMO.
ANC 14 OCT 85 CH:WD,CD. POS:SHL/OMEGA

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	17.093	35.334	25.766	80.0	15.764	35.280	26.037
10.0	16.768	35.344	25.851	90.0	15.623	35.257	26.052
20.0	16.355	35.338	25.944	100.0	15.514	35.235	26.060
30.0	16.201	35.325	25.970	120.0	14.836	35.143	26.140
40.0	16.164	35.321	25.976	140.0	13.975	35.023	26.233
50.0	16.072	35.313	25.991	160.0	13.733	34.989	26.257
60.0	15.926	35.304	26.018	180.0	13.340	34.952	26.310
70.0	15.812	35.290	26.034	200.0	12.615	34.871	26.393

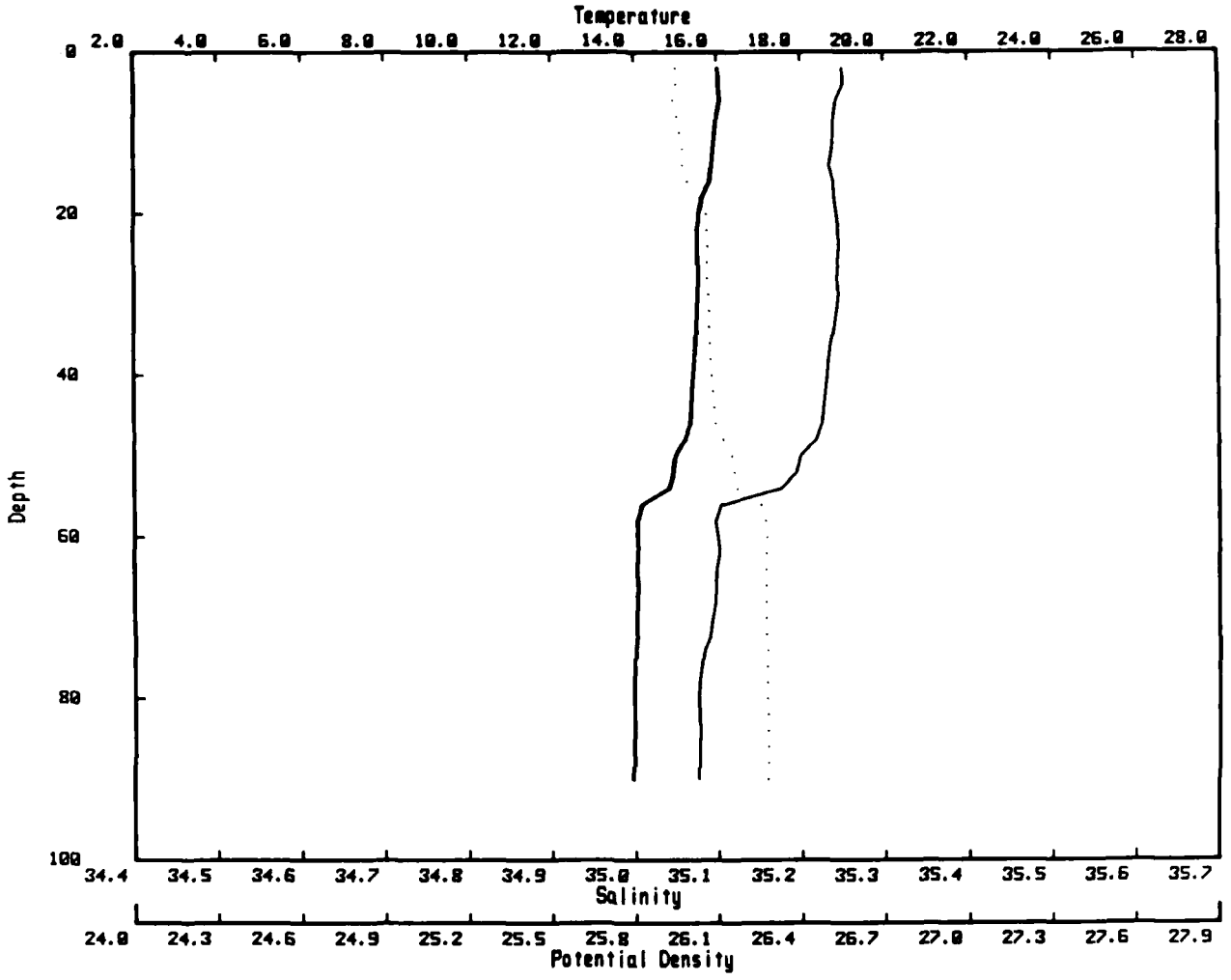
STATION PC7092 : 30 27.7 N 113 51.6 W 18/ 3/85 2352Z 154/ 159m



Day: 77.98 SST: 17.1 Tdry: 19.9 Twet: 15.8 Wspd: 25.9 CTD #: 3
NG2-19.SOME BLKUE AIR DELAY IN ARRIVING.
ANC 14 OCT 85 CH:WD,CD. POS:SHL/?

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.825	35.307	25.809	70.0	15.236	35.193	26.089
10.0	16.713	35.289	25.822	80.0	15.018	35.166	26.117
20.0	15.905	35.253	25.982	90.0	14.918	35.147	26.124
30.0	15.808	35.243	25.997	100.0	14.365	35.079	26.192
40.0	15.835	35.253	25.999	120.0	13.682	34.992	26.269
50.0	15.819	35.253	26.003	140.0	12.852	34.901	26.368
60.0	15.728	35.244	26.017				

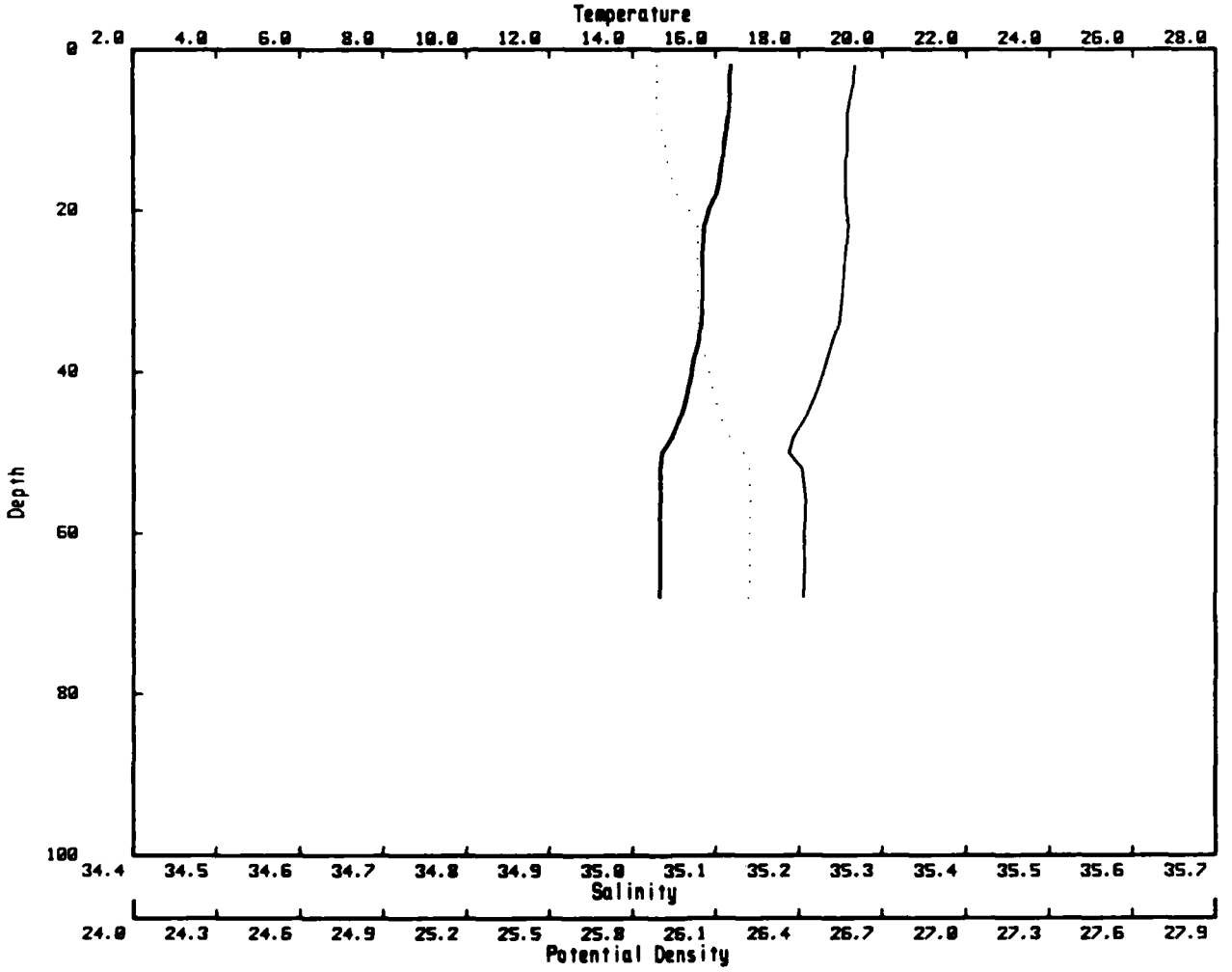
STATION PC7093 : 30 34.5 N 113 50.0 W 18/ 3/85 111Z 92/ 97m



Day: 78.05 SST: 16.4 Tdry: 18.9 Twet: 15.3 Wspd: 25.5 CTD #: 3
NG2-18.REALLY ROLLING
ANC 4 NOV 85 CH:WD,CD. POS:SHL/?

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.028	35.251	25.952	50.0	14.973	35.199	26.151
10.0	15.934	35.239	25.965	60.0	14.054	35.099	26.272
20.0	15.534	35.243	26.059	70.0	14.041	35.093	26.271
30.0	15.511	35.244	26.065	80.0	13.968	35.075	26.272
40.0	15.409	35.231	26.078	90.0	13.952	35.076	26.277

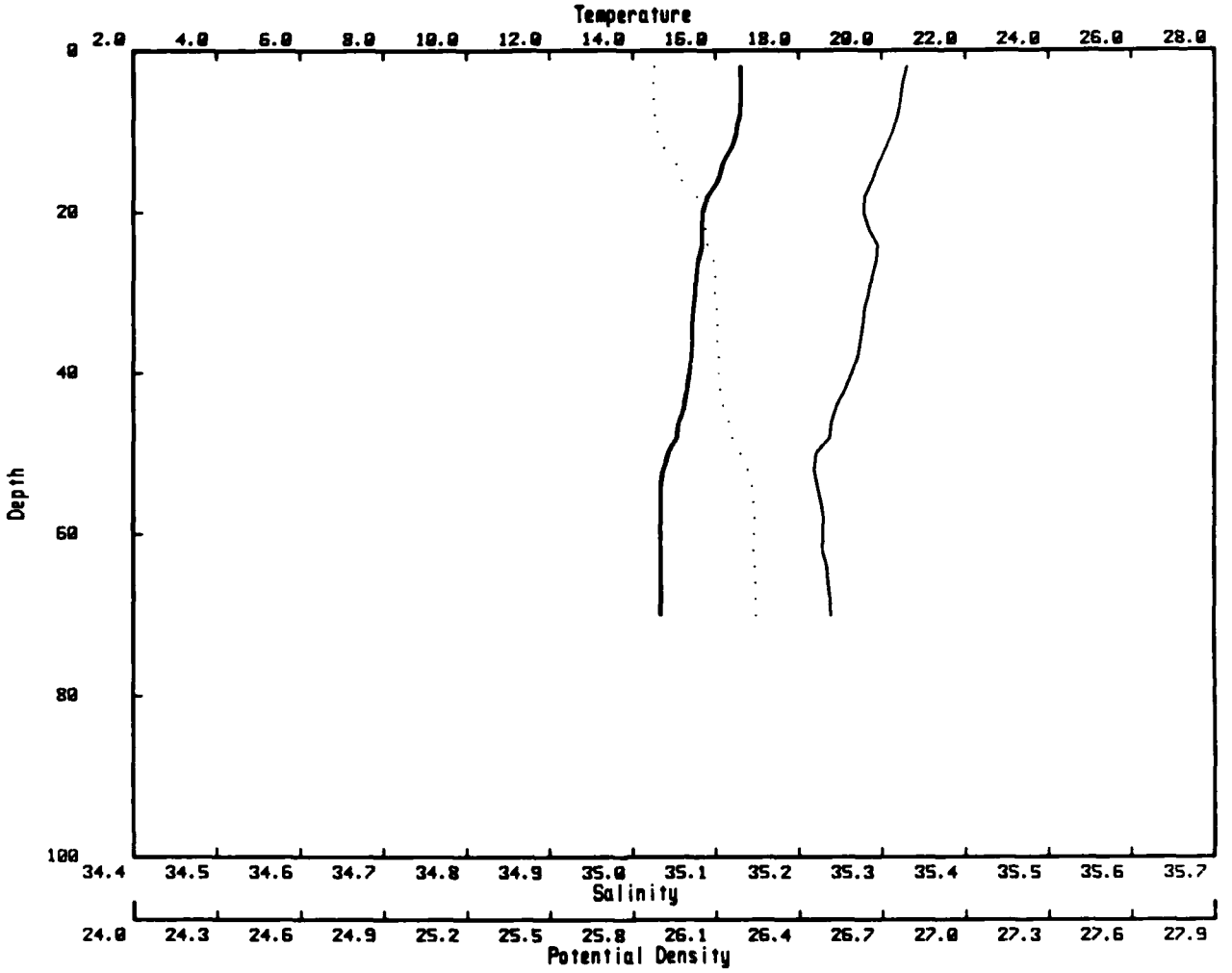
STATION PC7094 : 30 42.7 N 113 48.4 W 18/ 3/85 231Z 67/ 72m



Day: 78.10 SST: 16.6 Tdry: 17.9 Twet: 15.0 Wspd: 19.0 CTD #: 3
NG2-16A.FIX IS OMEGA, STANAV GUASTO. SEAS ABATING.
14 OCT 85 CH:WD,CD. POS:SHL/?

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.361	35.267	25.887	40.0	15.414	35.229	26.076
10.0	16.254	35.258	25.906	50.0	14.708	35.188	26.200
20.0	15.822	35.257	26.004	60.0	14.668	35.207	26.224
30.0	15.675	35.252	26.034				

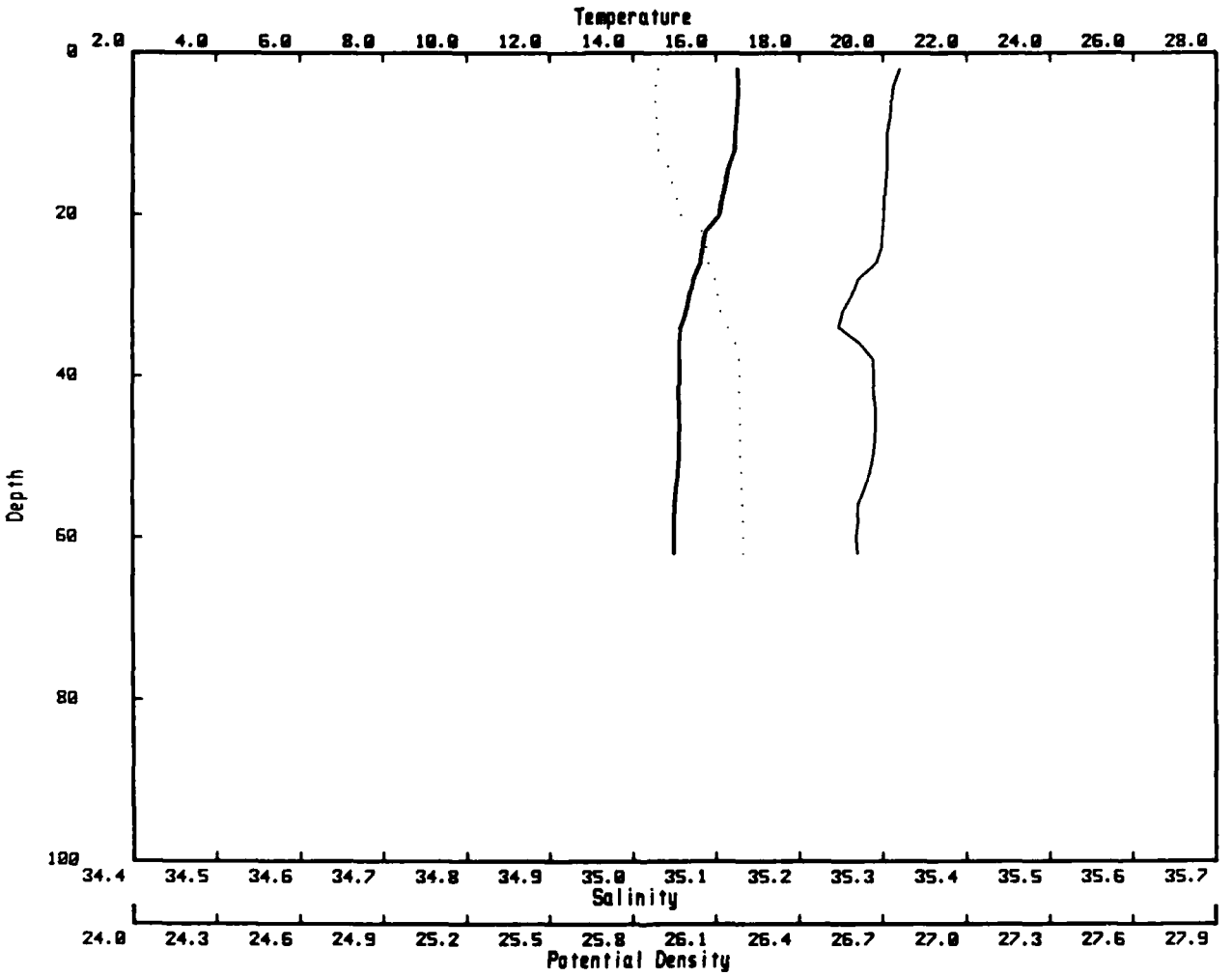
STATION PC7095 : 30 50.5 N 113 46.2 W 18/ 3/85 343Z 70/ 75m



Day: 78.14 SST: 16.8 Tdry: 18.0 Twet: 15.3 Wspd: 10.0 CTD #: 3
NG2-16A.POS IS OMEGA.JACK SAYS EYE OF HURRICANE IS PAST.
ANC 14 OCT 85 CH:WD,CD. POS:SHL/OMEGA

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.604	35.330	25.879	40.0	15.370	35.264	26.113
10.0	16.510	35.313	25.888	50.0	14.864	35.221	26.192
20.0	15.679	35.278	26.053	60.0	14.678	35.230	26.239
30.0	15.499	35.284	26.099	70.0	14.682	35.239	26.246

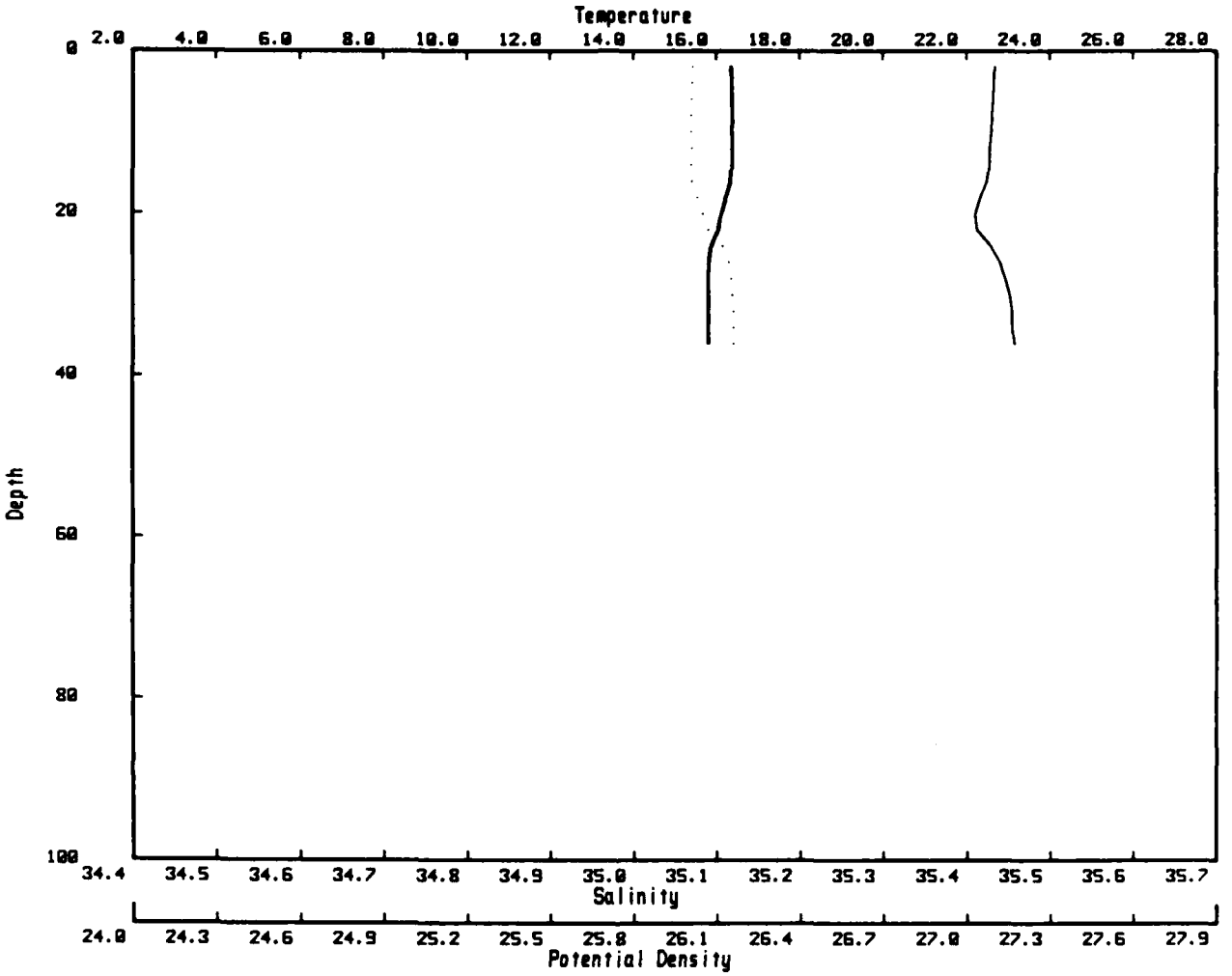
STATION PC7096 : 31 .8 N 113 44.5 W 18/ 3/85 506Z 62/ 67m



Day: 78.21 SST: 16.8 Tdry: 16.7 Twet: 13.1 Wspd: 32.6 CTD #: 3
NG2-16.OMEGA POS. JACK WAS RIGHT.
ANC 14 OCT 85 CH:WD,CD. POS:SHL/?

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.515	35.320	25.892	40.0	15.126	35.290	26.187
10.0	16.475	35.306	25.891	50.0	15.111	35.289	26.190
20.0	16.100	35.302	25.975	60.0	15.003	35.269	26.198
30.0	15.383	35.264	26.109				

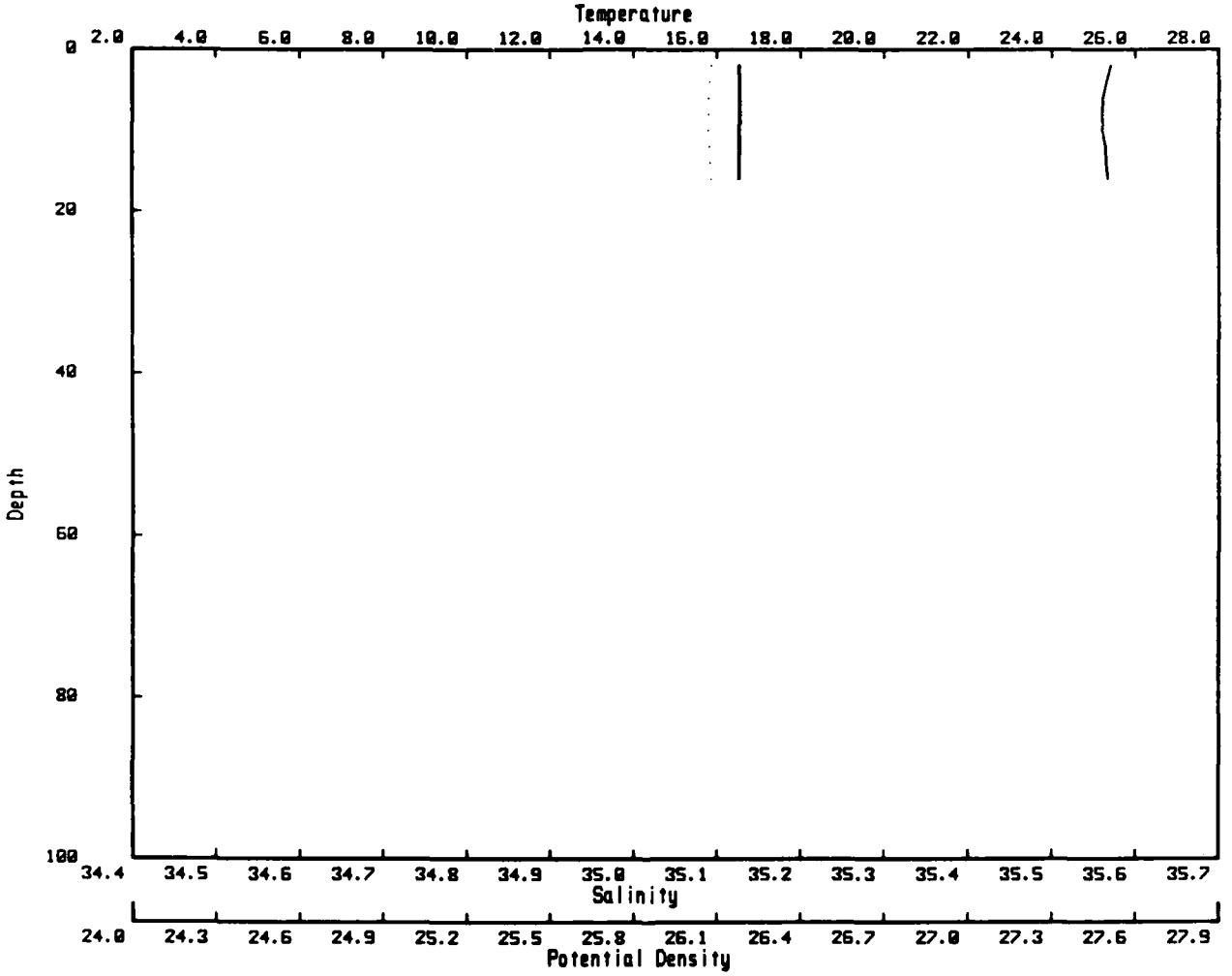
STATION PC7097 : 31 7.2 N 113 41.9 W 18/ 3/85 622Z 36/ 41m



Day: 78.26 SST: 16.6 Tdry: 16.6 Twet: 12.5 Wspd: 25.0 CTD #: 3
NG2-15A. RADAR ON PTA PENASCO;031 AT 11.5 MI. ROLLING 0 0 OP
ANC 14 OCT 85 CH:WD,CD. POS:SHL/RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.360	35.434	26.016	20.0	16.128	35.411	26.053
10.0	16.381	35.430	26.008	30.0	15.803	35.452	26.159

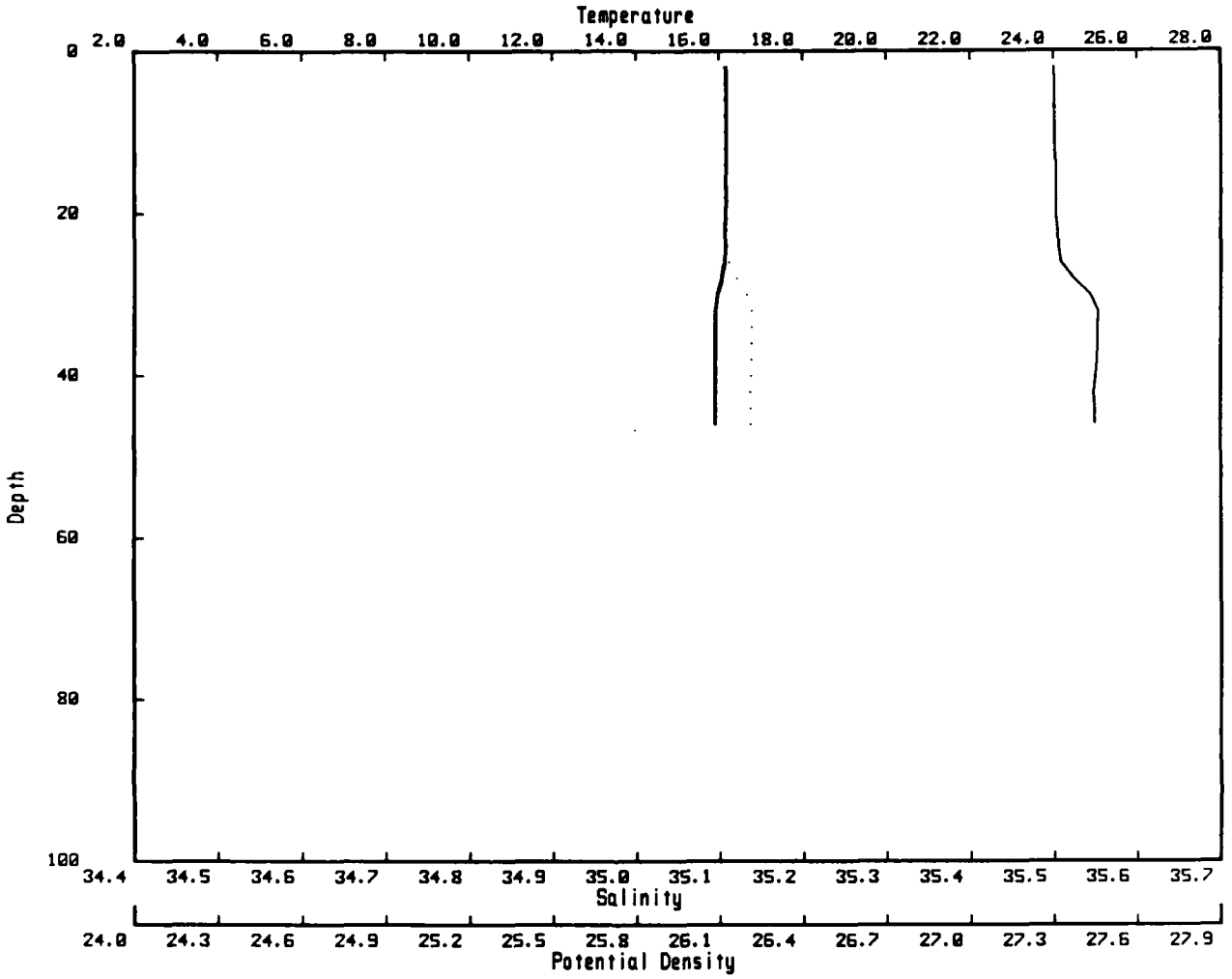
STATION PC7098 : 31 13.7 N 113 46.7 W 19/ 3/85 746Z 16/ 21m



Day: 78.31 SST: 16.7 Tdry: 15.3 Twet: 11.2 Wspd: 31.0 CTD #: 3
NG2-14
ANC 23 OCT 85 CH:T,WD,CD. POS:CINDY RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.532	35.570	26.080	10.0	16.549	35.561	26.069

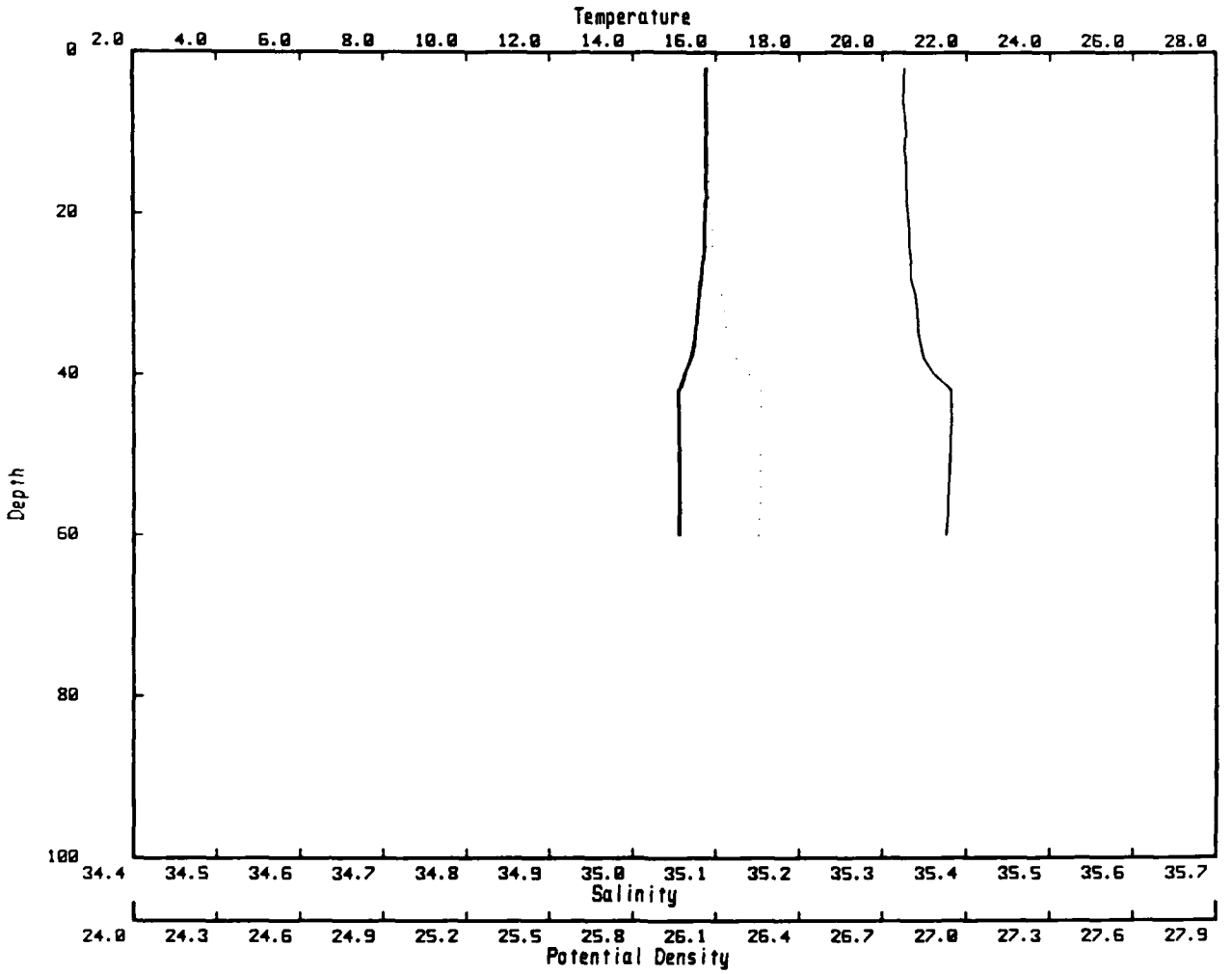
STATION PC7099 : 31 11.0 N 113 53.0 W 19/ 3/85 900Z 46/ 52m



Day: 78.38 SST: 16.3 Tdry: 15.1 Twet: 11.6 Wspd: 22.8 CTD #: 3
NG2-13A
ANC 24 OCT 85 CH:WD,CD. POS:CINDY RADAR *** uptrace ***

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.151	35.500	26.115	30.0	15.941	35.543	26.197
10.0	16.150	35.501	26.116	40.0	15.900	35.550	26.212
20.0	16.144	35.502	26.119				

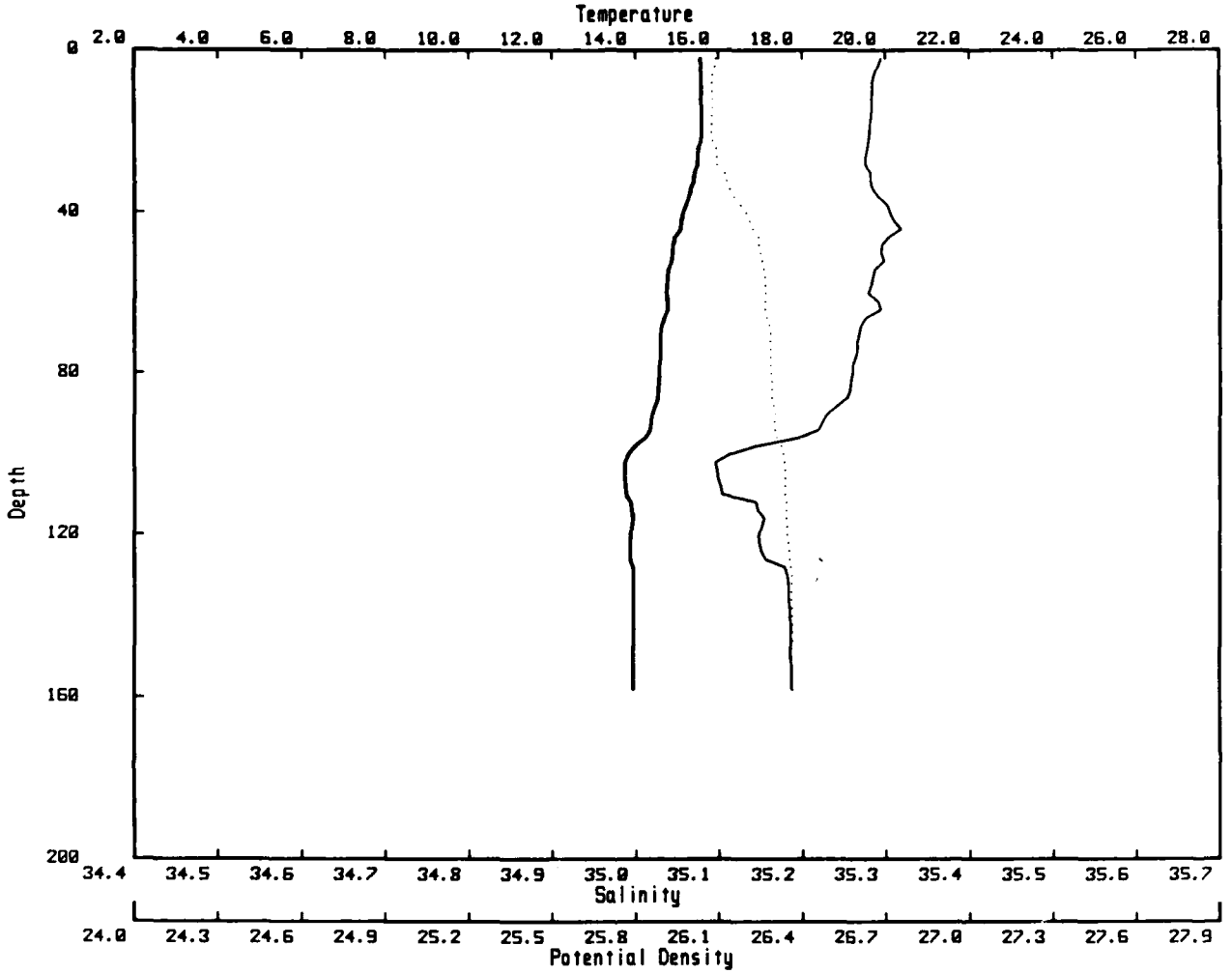
STATION PC7100 : 31 4.0 N 114 59.5 W 19/ 3/85 1031Z 59/ 64m



Day: 78.43 SST: 16.0 Tdry: 14.7 Twet: 11.2 Wspd: 16.0 CTD #: 3
NG2-13A
ANC 14 OCT 85 CH:WD,CD. POS:ANC RADAR *** uptrace ***

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	15.771	35.326	26.068	40.0	15.230	35.361	26.218
10.0	15.771	35.328	26.070	50.0	15.109	35.381	26.261
20.0	15.745	35.330	26.078	60.0	15.122	35.376	26.255
30.0	15.591	35.339	26.120				

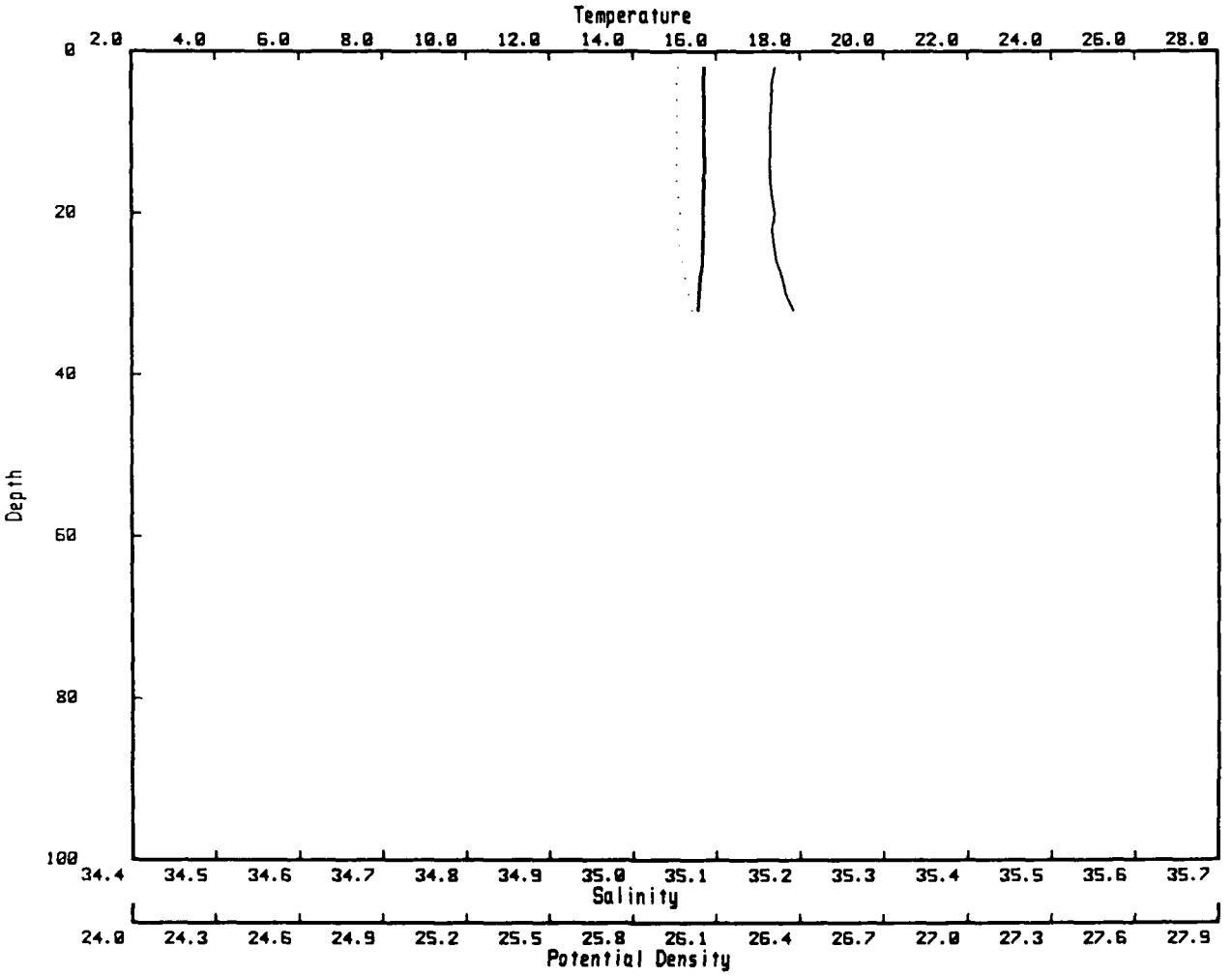
STATION PC7101 : 31 4.8 N 114 13.2 W 19/ 3/85 1317Z 159/ 164m



Day: 78.45 SST: 15.8 Tdry: 15.6 Twet: 12.7 Wspd: 23.0 CTD #: 3
NG2-13 REDONE. NAB.
ANC 14 OCT 85 CH:T,WD,CD. POS:ANC RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	15.565	35.295	26.091	70.0	14.604	35.268	26.285
10.0	15.585	35.285	26.079	80.0	14.566	35.260	26.287
20.0	15.593	35.281	26.075	90.0	14.397	35.230	26.301
30.0	15.399	35.281	26.119	100.0	13.838	35.114	26.330
40.0	15.129	35.305	26.198	120.0	13.886	35.148	26.347
50.0	14.868	35.294	26.247	140.0	13.950	35.185	26.363
60.0	14.725	35.278	26.266				

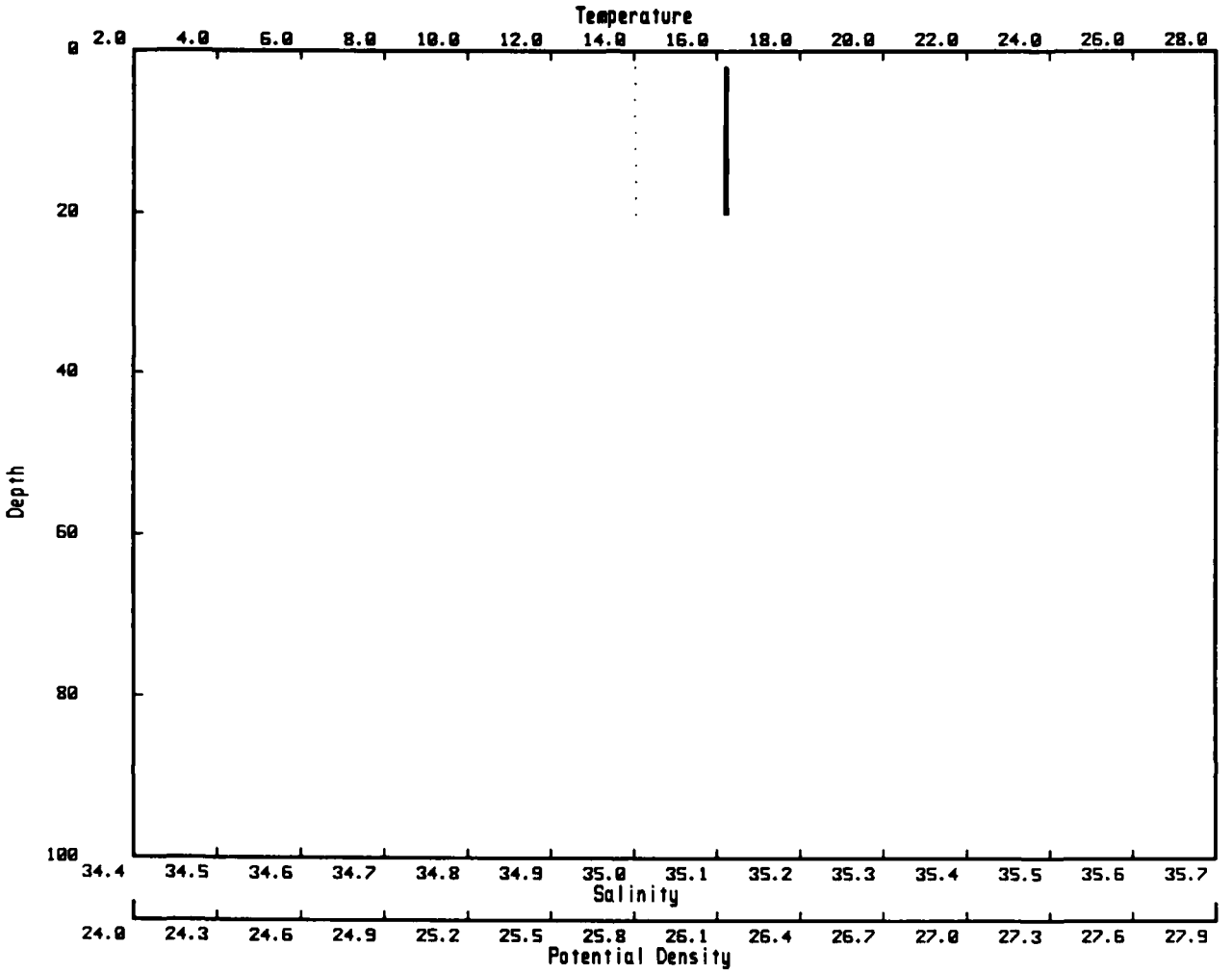
STATION PC7102 : 31 2.1 N 114 22.2 W 19/ 3/85 1438Z 35/ 42m



Day: 78.60 SST: 16.1 Tdry: 15.7 Twet: 12.5 Wspd: 14.0 CTD #: 3
NG1-12. SATNAV SUSPECT 8.7 310 TO CONSAG ROCK.
ANC 14 OCT 85 CH:WD,CD. POS:ANC RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	15.707	35.170	25.963	20.0	15.684	35.170	25.969
10.0	15.714	35.165	25.958	30.0	15.594	35.184	26.000

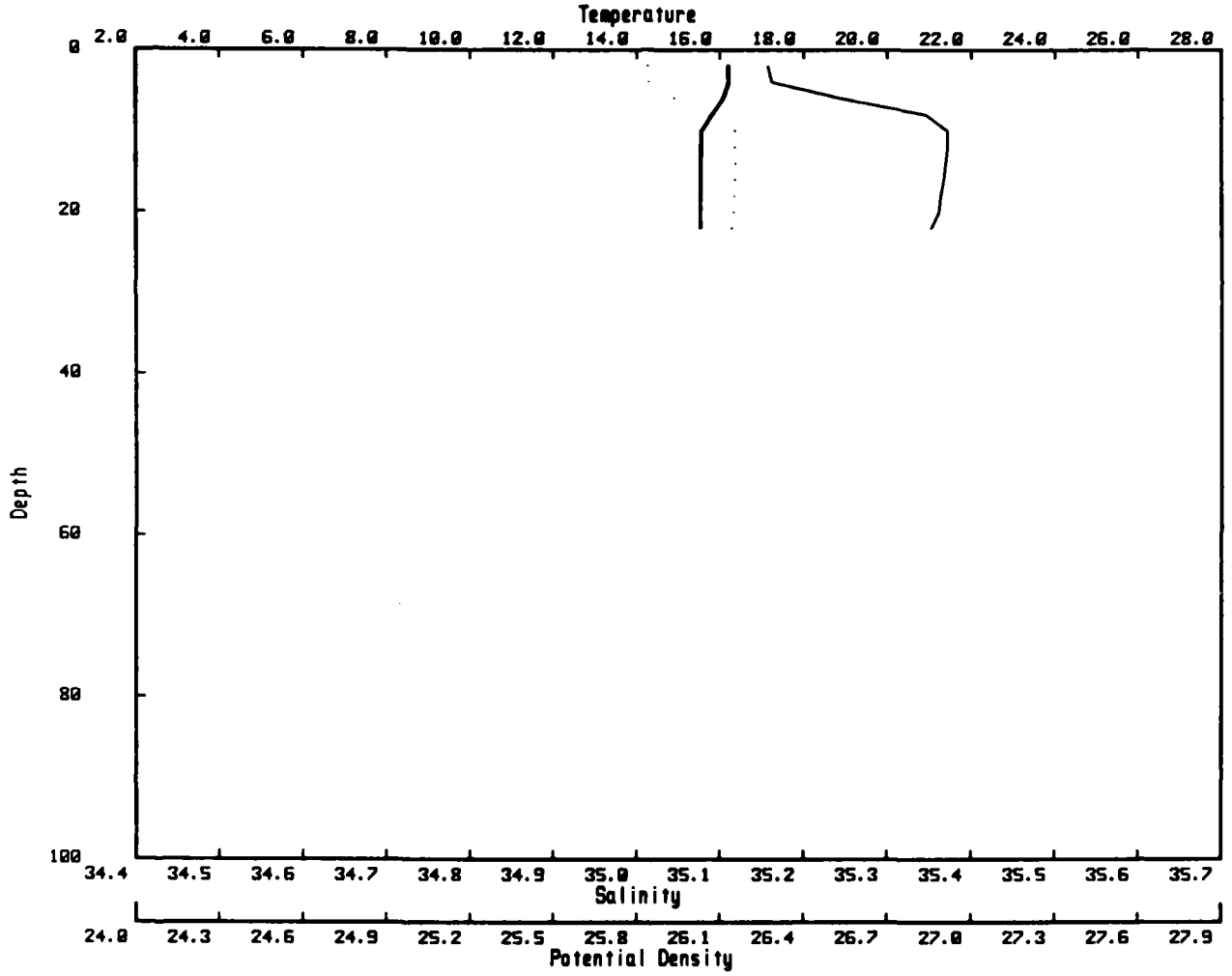
STATION PC7103 : 30 58.0 N 114 30.8 W 19/ 3/85 1538Z 21/ 26m



Day: 78.64 SST: 16.4 Tdry: 16.0 Twet: 12.6 Wspd: 8.2 CTD #: 3
NG2-11. 005 @ 7 MI FROM CONSAG ROCK. SATNAV SUSPECT.
ANC 14 OCT 85 CH:WD,CD. POS:ANC RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.211	35.113	25.804	20.0	16.198	35.113	25.808
10.0	16.205	35.112	25.805				

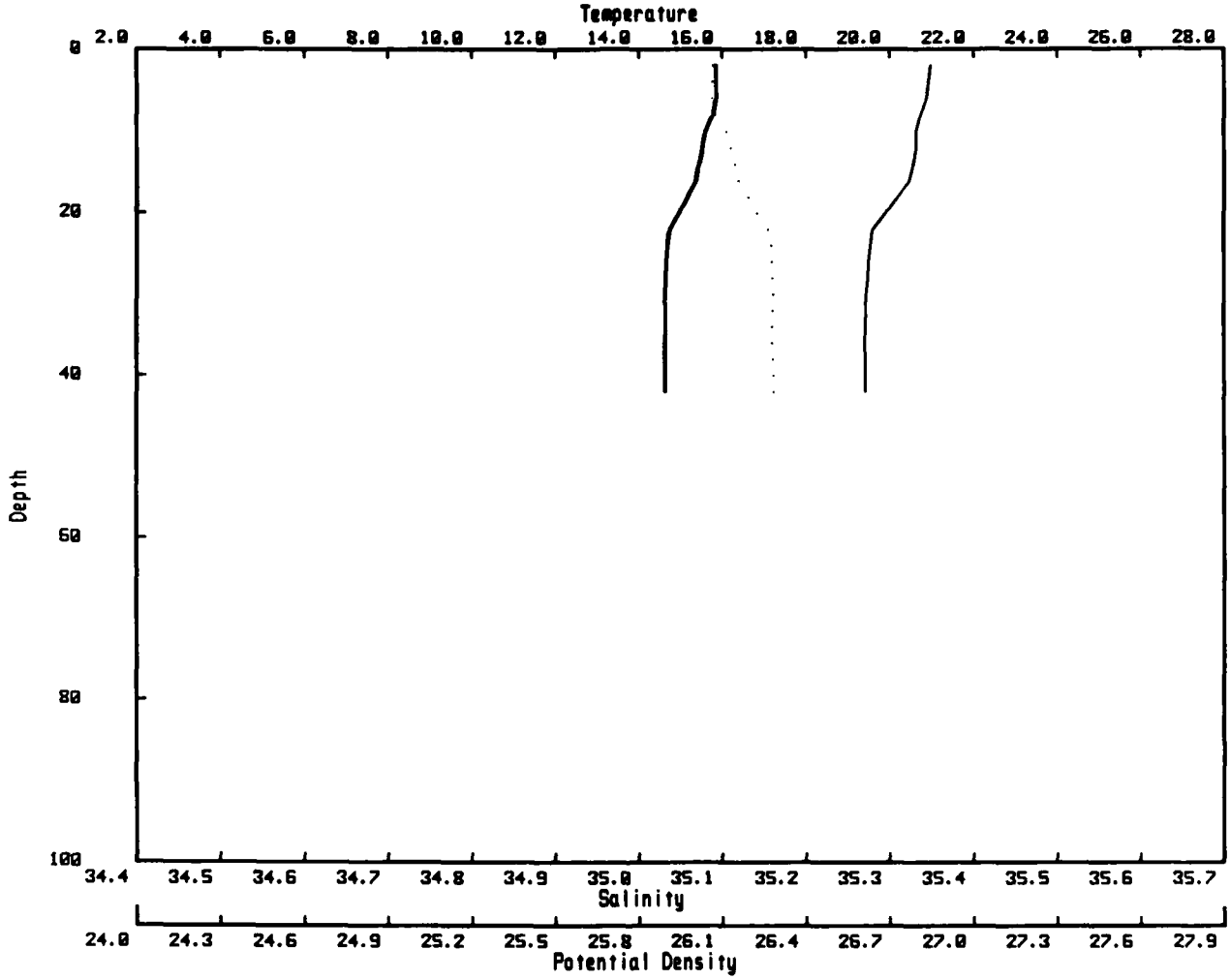
STATION PC7104 : 31 25.0 N 114 18.5 W 20/ 3/85 717Z 22/ 27m



Day: 79.30 SST: 16.5 Tdry: 16.6 Twet: 14.6 Wspd: 6.5 CTD #: 3
SF-1 *** uptrace ***
ANC 14 OCT 85 CH:WD,CD. POS:SHL/RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.206	35.158	25.840	20.0	15.538	35.362	26.149
10.0	15.555	35.372	26.153				

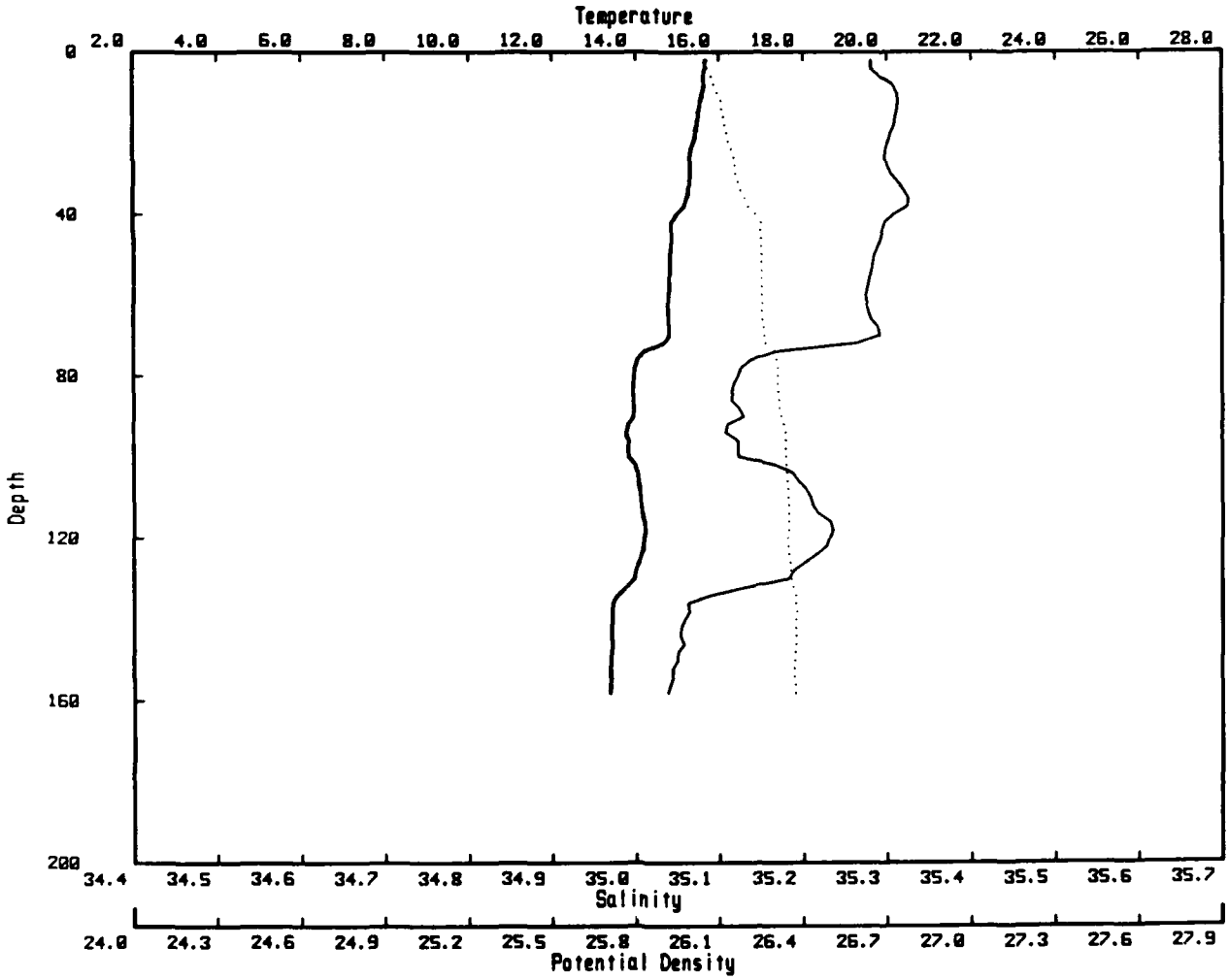
STATION PC7105 : 31 16.5 N 114 14.5 W 20/ 3/85 832Z 100/ 105m



Day: 79.35 SST: 16.0 Tdry: 16.2 Twet: 14.8 Wspd: 14.3 CTD #: 3
SF-2
ANC 14 OCT 85 CH:WD,CD. POS:SHL/RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	15.851	35.349	26.068	30.0	14.631	35.272	26.281
10.0	15.591	35.332	26.114	40.0	14.619	35.271	26.283
20.0	14.962	35.295	26.226				

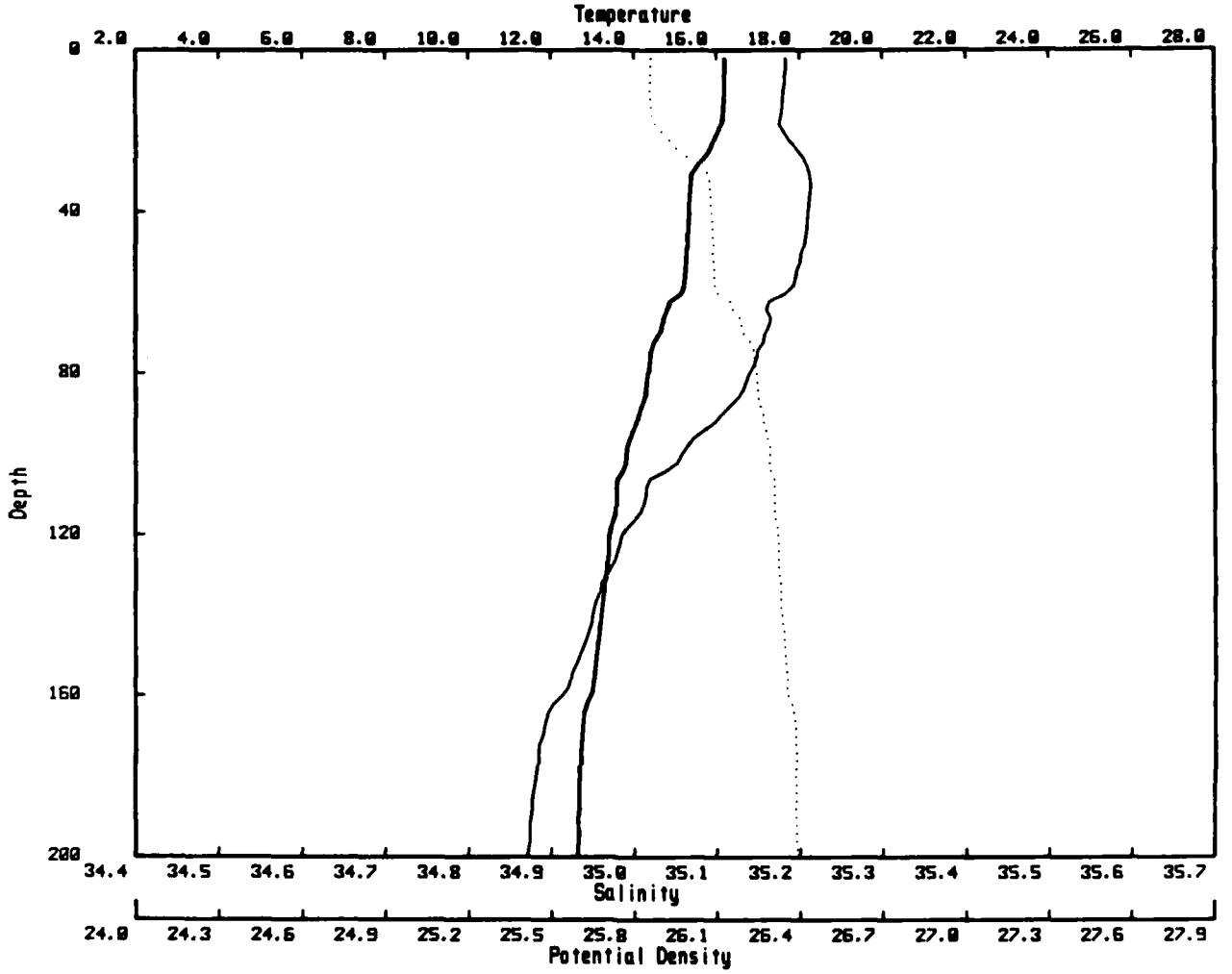
STATION PC7106 : 31 5.0 N 114 11.0 W 20/ 3/85 956Z 158/ 163m



Day: 79.40 SST: 15.9 Tdry: 15.9 Twet: 15.1 Wspd: 8.3 CTD #: 3
SF-3
ANC 17 OCT 85 CH:WD,CD,T. POS:SHL/RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	15.670	35.281	26.057	70.0	14.795	35.292	26.262
10.0	15.614	35.313	26.094	80.0	13.961	35.122	26.310
20.0	15.443	35.305	26.127	90.0	13.934	35.129	26.321
30.0	15.302	35.305	26.159	100.0	13.835	35.123	26.338
40.0	14.995	35.309	26.230	120.0	14.197	35.231	26.345
50.0	14.815	35.285	26.252	140.0	13.426	35.058	26.373
60.0	14.783	35.275	26.251				

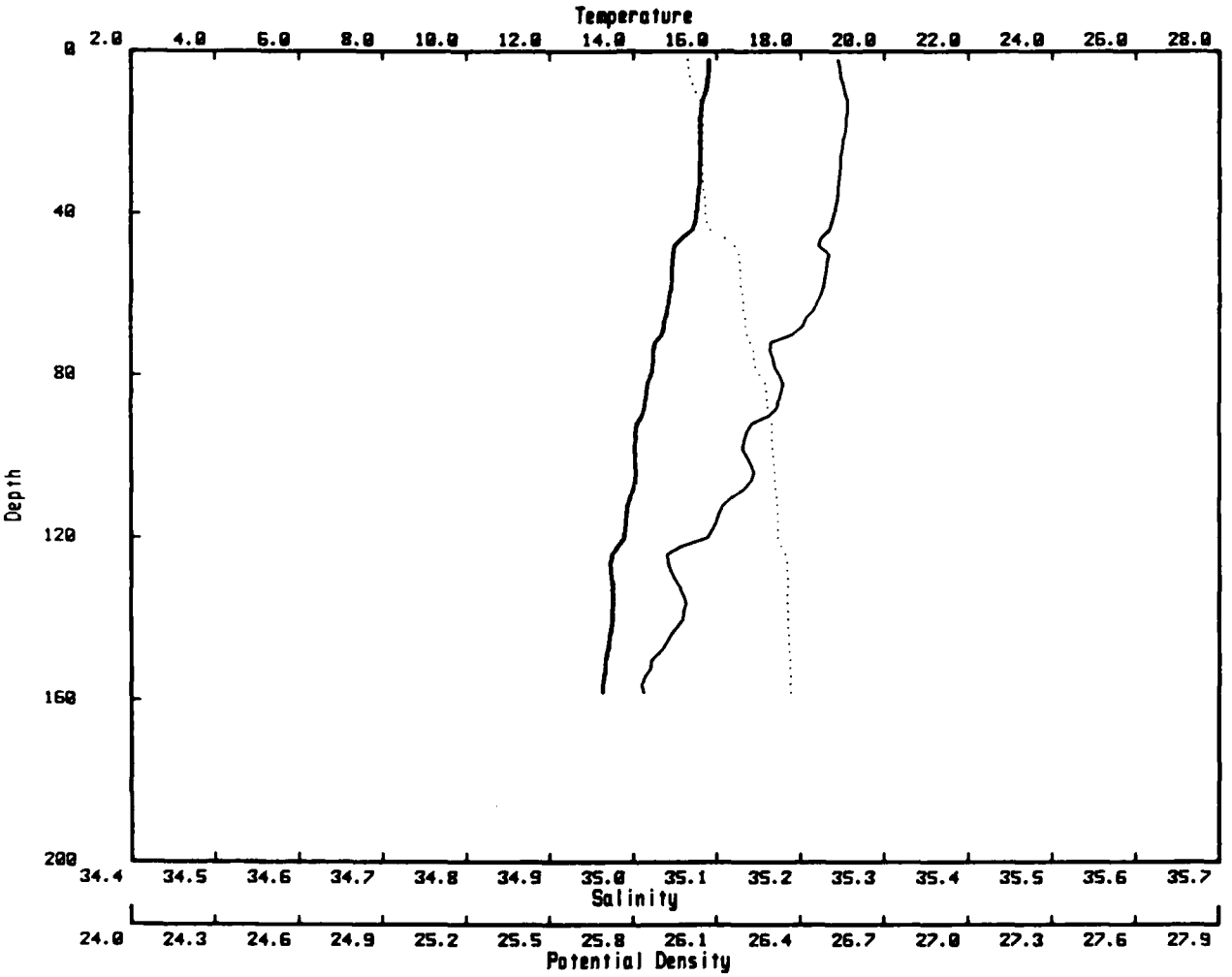
STATION PC7108 : 30 46.0 N 114 9.0 W 20/ 3/85 1225Z 198/ 203m



Day: 79.51 SST: 16.4 Tdry: 16.2 Twet: 14.7 Wspd: 7.6 CTD #: 3
SF-5 *** uptrace ***
ANC 15 OCT 85 CH:WD,CD,T. POS:SHL/?

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.195	35.184	25.862	80.0	14.335	35.139	26.244
10.0	16.198	35.181	25.860	90.0	14.106	35.105	26.267
20.0	16.020	35.181	25.901	100.0	13.812	35.057	26.292
30.0	15.401	35.212	26.065	120.0	13.402	34.985	26.321
40.0	15.327	35.210	26.081	140.0	13.206	34.950	26.335
50.0	15.272	35.202	26.087	160.0	12.950	34.913	26.358
60.0	15.140	35.184	26.103	180.0	12.690	34.882	26.387
70.0	14.617	35.158	26.198	200.0	12.640	34.872	26.389

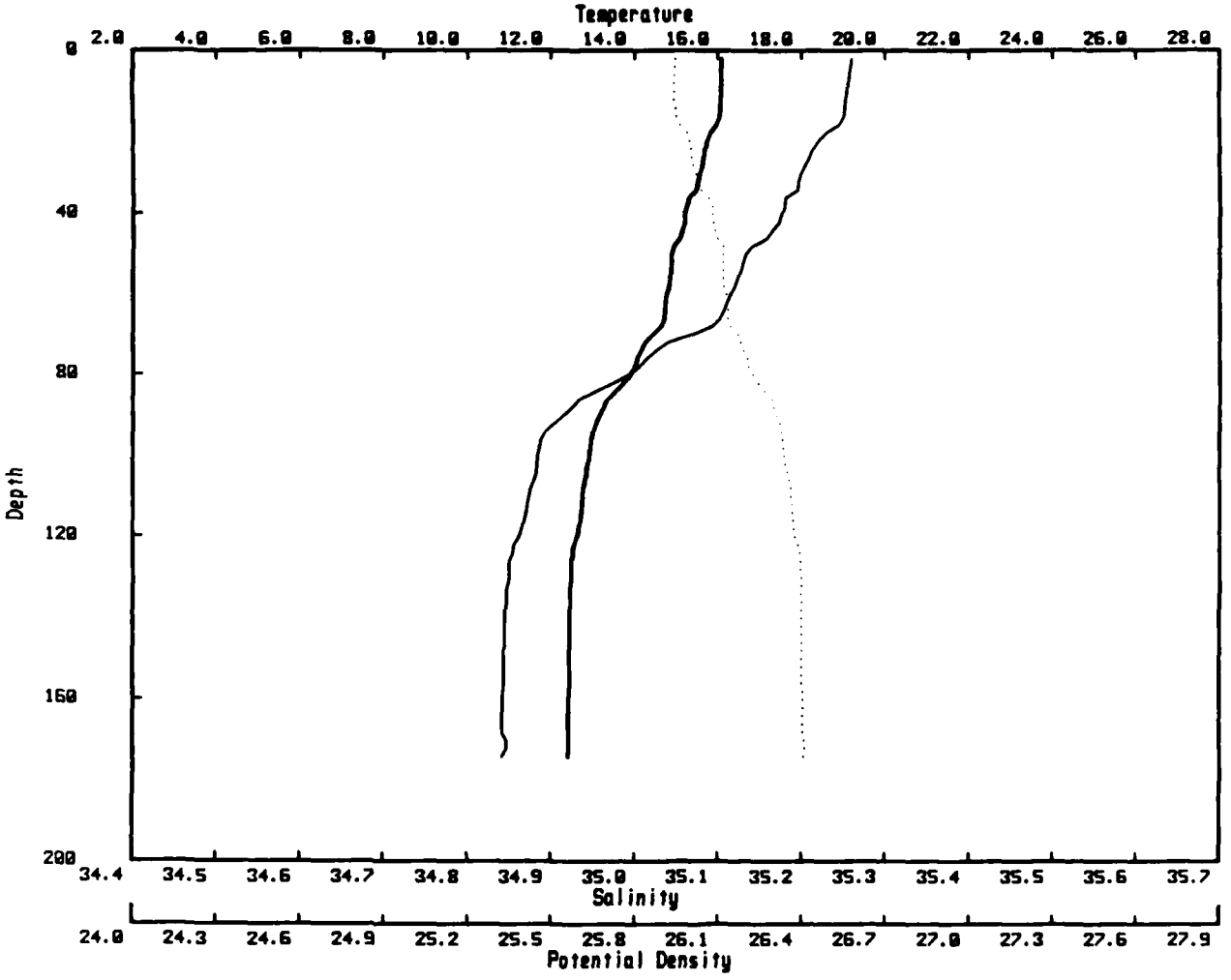
STATION PC7107 : 30 55.8 N 114 12.0 W 20/ 3/85 1106Z 158/ 163m



Day: 79.46 SST: 16.1 Tdry: 16.2 Twet: 15.0 Wspd: 6.2 CTD #: 3
SF-4
ANC 15 OCT 85 CH:WD,CD. POS:SHL/?

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	15.816	35.245	25.996	70.0	14.676	35.190	26.209
10.0	15.725	35.253	26.023	80.0	14.417	35.175	26.254
20.0	15.611	35.254	26.050	90.0	14.205	35.163	26.290
30.0	15.595	35.247	26.049	100.0	14.043	35.136	26.304
40.0	15.519	35.241	26.061	120.0	13.792	35.089	26.321
50.0	14.963	35.234	26.180	140.0	13.512	35.060	26.357
60.0	14.872	35.225	26.193				

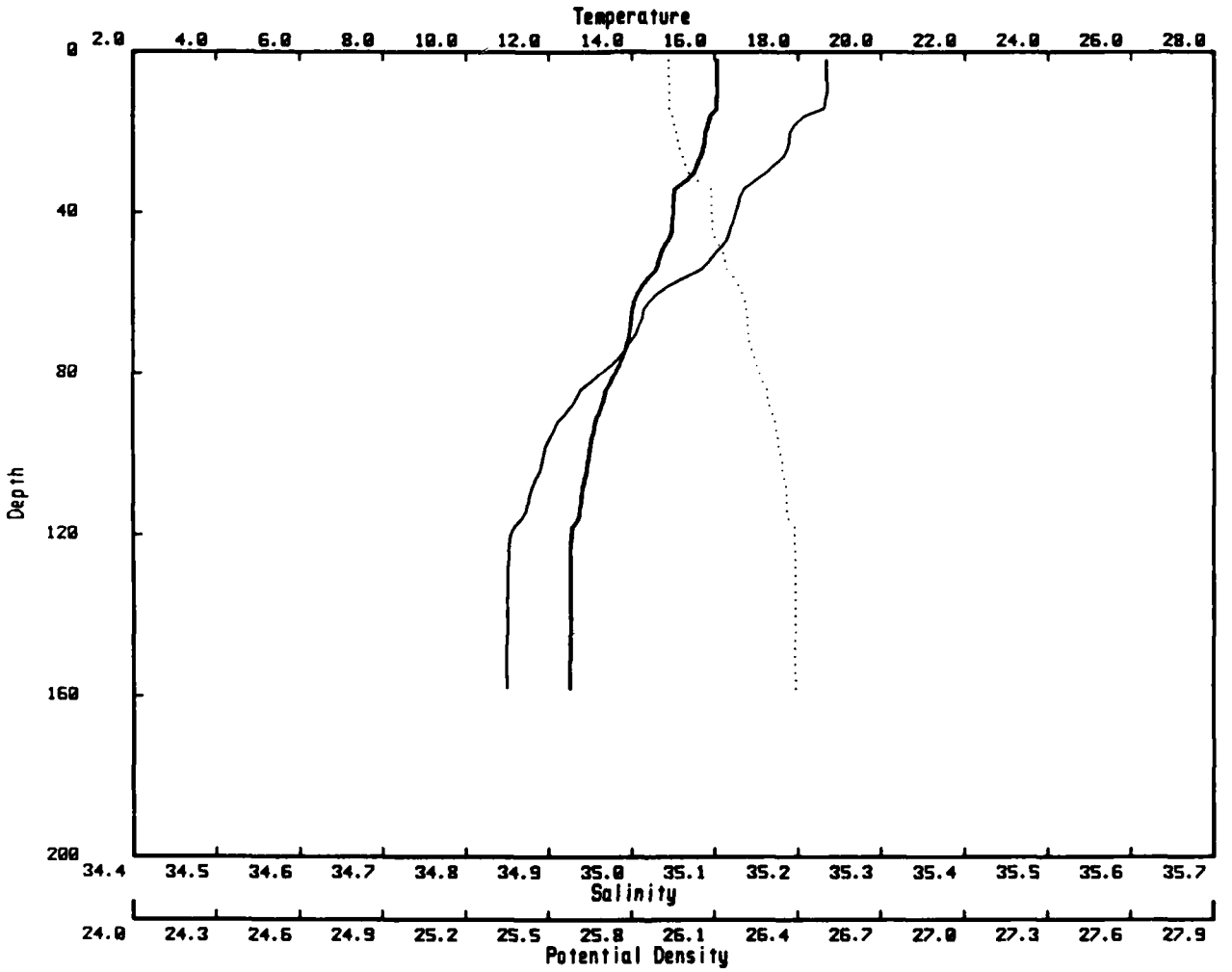
STATION PC7109 : 30 38.6 N 114 2.9 W 20/ 3/85 1345Z 174/ 180m



Day: 79.56 SST: 16.1 Tdry: 15.8 Twet: 15.1 Wspd: 11.6 CTD #: 3
SF-6
ANC 15 OCT 85 CH:WD,CD. POS:SHL/?

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.088	35.260	25.945	70.0	14.420	35.069	26.171
10.0	16.082	35.255	25.943	80.0	13.897	34.994	26.225
20.0	15.807	35.229	25.986	90.0	13.175	34.915	26.313
30.0	15.558	35.199	26.020	100.0	12.925	34.884	26.339
40.0	15.207	35.176	26.081	120.0	12.637	34.862	26.380
50.0	14.886	35.133	26.119	140.0	12.459	34.846	26.403
60.0	14.769	35.115	26.131	160.0	12.438	34.842	26.405

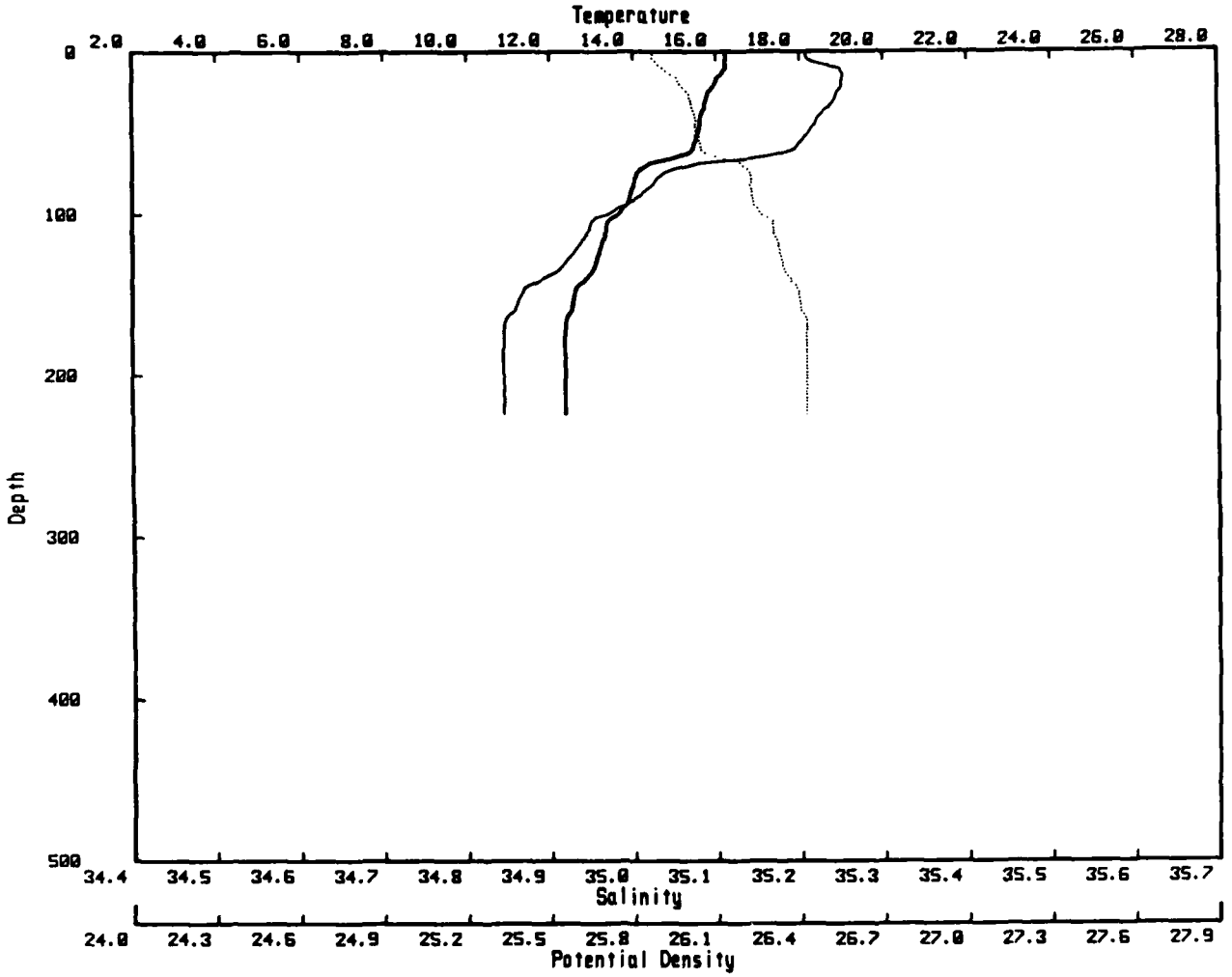
STATION PC7110 : 30 34.3 N 114 .7 W 20/ 3/85 1519Z 158/ 163m



Day: 79.63 SST: 16.2 Tdry: 15.9 Twet: 14.9 Wspd: 11.8 CTD #: 3
SF-7
ANC 15 OCT 85 CH:WD,CD. POS:SHL/?

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.057	35.234	25.932	70.0	13.951	35.005	26.222
10.0	16.052	35.235	25.935	80.0	13.600	34.963	26.263
20.0	15.788	35.191	25.961	90.0	13.207	34.920	26.310
30.0	15.487	35.162	26.008	100.0	12.972	34.894	26.338
40.0	14.998	35.125	26.088	120.0	12.555	34.854	26.390
50.0	14.712	35.101	26.132	140.0	12.533	34.850	26.392
60.0	14.152	35.032	26.200				

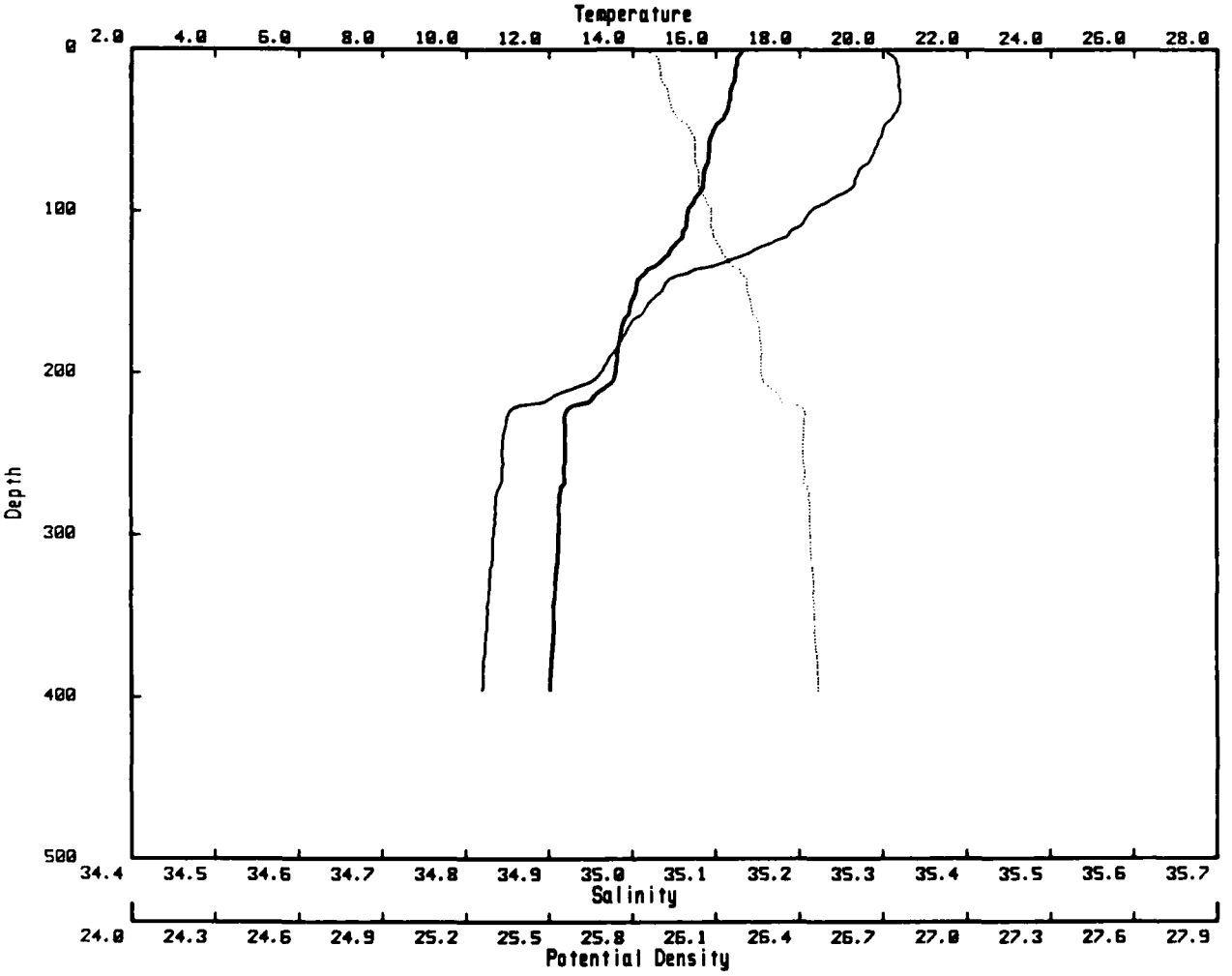
STATION PC7111 : 30 26.1 N 113 57.9 W 20/ 3/85 1630Z 224/ 229m



Day: 79.68 SST: 16.5 Tdry: 16.3 Twet: 14.4 Wspd: 6.7 CTD #: 3
SF-8
ANC 15 OCT 85 CH:WD,CD,T. POS:SHL/?

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.230	35.208	25.873	80.0	14.016	35.025	26.224
10.0	16.223	35.249	25.906	90.0	13.906	35.003	26.230
20.0	15.958	35.250	25.968	100.0	13.625	34.968	26.262
30.0	15.754	35.241	26.008	120.0	13.204	34.933	26.322
40.0	15.621	35.222	26.024	140.0	12.832	34.890	26.364
50.0	15.550	35.210	26.031	160.0	12.503	34.857	26.404
60.0	15.428	35.192	26.045	180.0	12.352	34.844	26.423
70.0	14.299	35.065	26.194	200.0	12.355	34.844	26.423

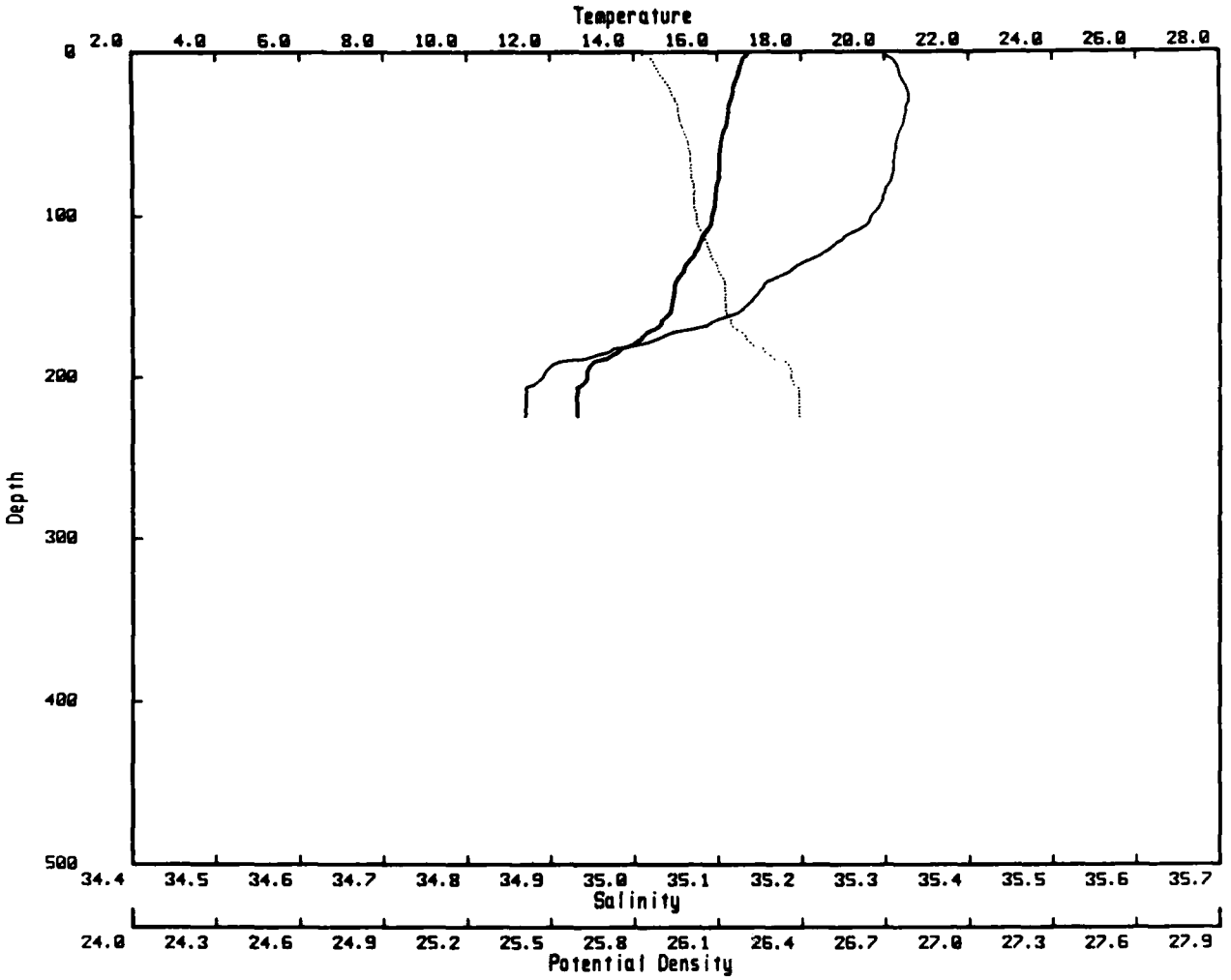
STATION PC7112 : 30 14.4 N 113 50.0 W 20/ 3/85 1851Z 395/ 400m



Day: 79.77 SST: 17.0 Tdry: 17.1 Twet: 13.9 Wspd: 8.0 CTD #: 3
NG2-5
ANC 15 OCT 85 CH:WD,CD,T. POS:SHL/?

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.599	35.305	25.861	90.0	15.566	35.247	26.057
10.0	16.487	35.318	25.898	100.0	15.329	35.213	26.084
20.0	16.445	35.320	25.909	120.0	15.063	35.166	26.108
30.0	16.352	35.321	25.932	140.0	14.224	35.053	26.203
40.0	16.224	35.313	25.956	160.0	13.955	35.016	26.232
50.0	15.948	35.300	26.010	180.0	13.703	34.987	26.263
60.0	15.850	35.292	26.026	200.0	13.606	34.962	26.264
70.0	15.814	35.283	26.028	300.0	12.232	34.834	26.442
80.0	15.713	35.267	26.039				

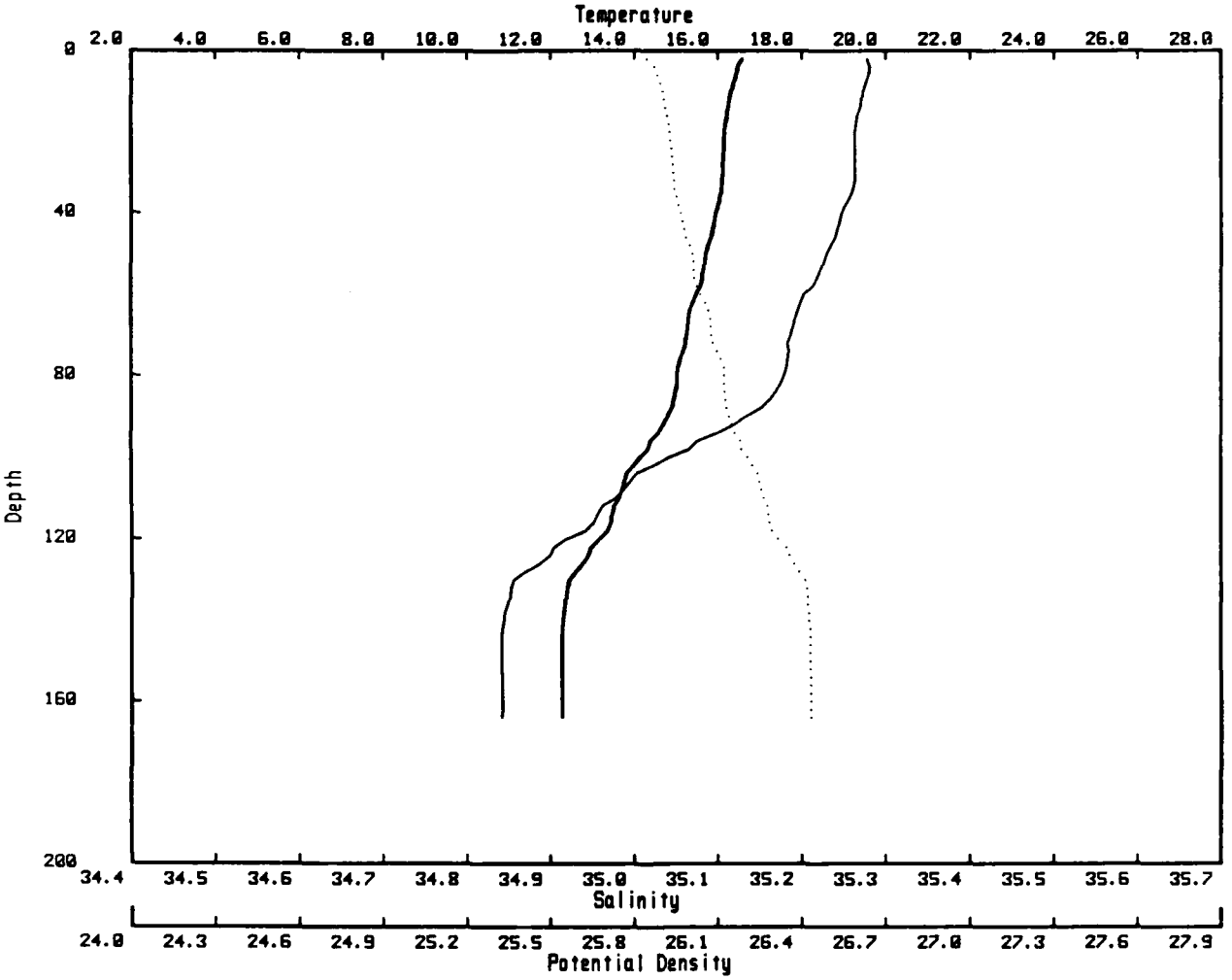
STATION PC7113 : 30 10.6 N 113 45.5 W 20/ 3/85 1954Z 224/ 229m



Day: 79.81 SST: 17.0 Tdry: 17.2 Twet: 14.4 Wspd: 5.8 CTD #: 3
NG2-4.
ANC 15 OCT 85 CH:WD,CD. POS:SHL/?

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.712	35.299	25.830	80.0	15.959	35.303	26.011
10.0	16.549	35.317	25.882	90.0	15.928	35.296	26.013
20.0	16.401	35.325	25.923	100.0	15.840	35.282	26.022
30.0	16.306	35.329	25.949	120.0	15.491	35.233	26.064
40.0	16.234	35.323	25.961	140.0	14.982	35.160	26.122
50.0	16.120	35.316	25.983	160.0	14.828	35.122	26.127
60.0	16.046	35.312	25.997	180.0	13.936	35.001	26.225
70.0	16.019	35.309	26.001	200.0	12.856	34.890	26.360

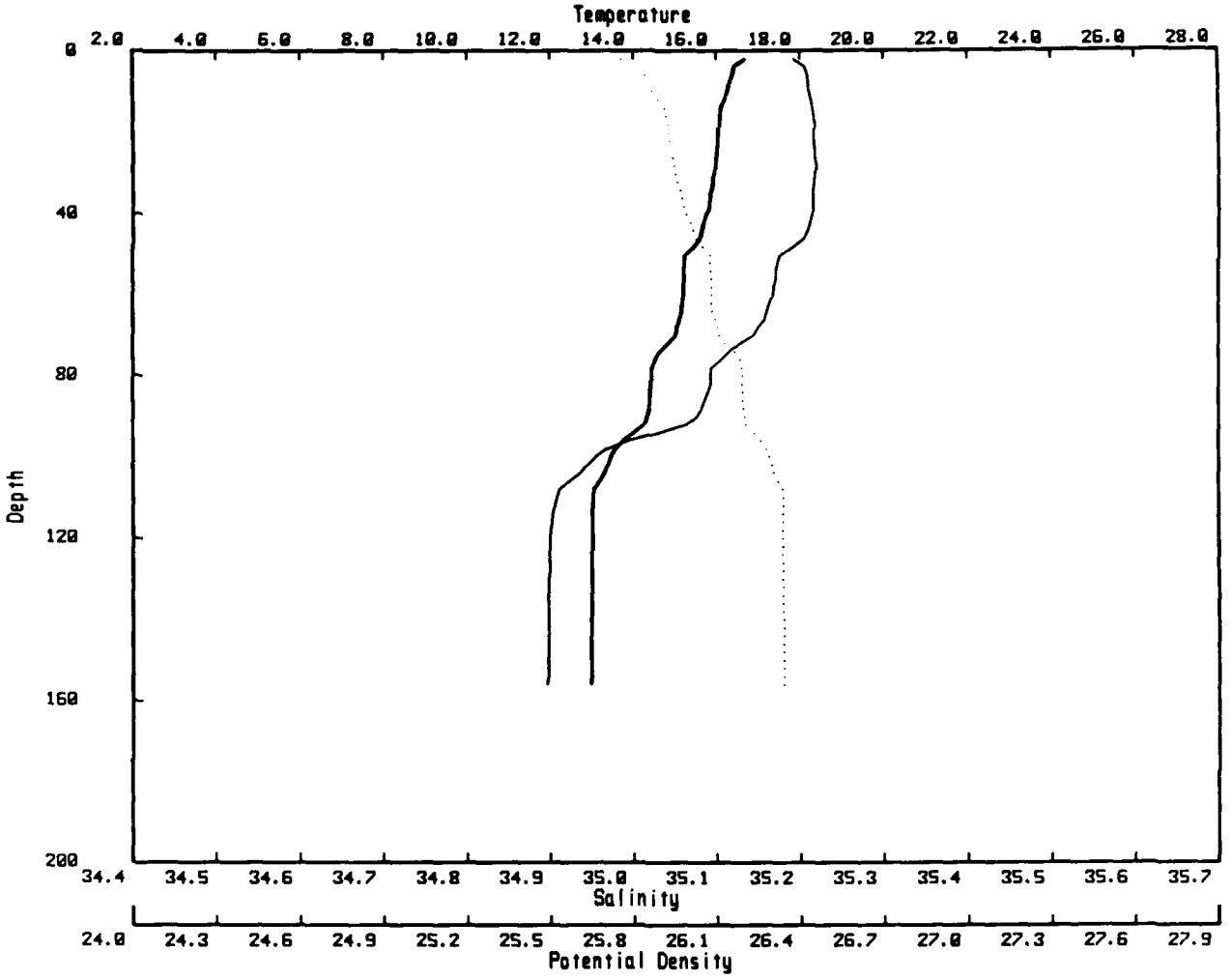
STATION PC7114 : 30 6.9 N 113 33.1 W 20/ 3/85 2127Z 164/ 169m



Day: 79.89 SST: 16.9 Tdry: 18.2 Twet: 14.3 Wspd: 2.2 CTD #: 3
NG2-3.
ANC 15 OCT 85 CH:WD,CD. POS:SHL/?

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.571	35.278	25.847	70.0	15.266	35.187	26.077
10.0	16.319	35.273	25.902	80.0	15.037	35.179	26.122
20.0	16.176	35.264	25.929	90.0	14.792	35.134	26.142
30.0	16.127	35.264	25.940	100.0	14.157	35.043	26.208
40.0	15.953	35.248	25.968	120.0	13.178	34.919	26.316
50.0	15.714	35.230	26.009	140.0	12.319	34.845	26.430
60.0	15.488	35.203	26.040	160.0	12.286	34.843	26.435

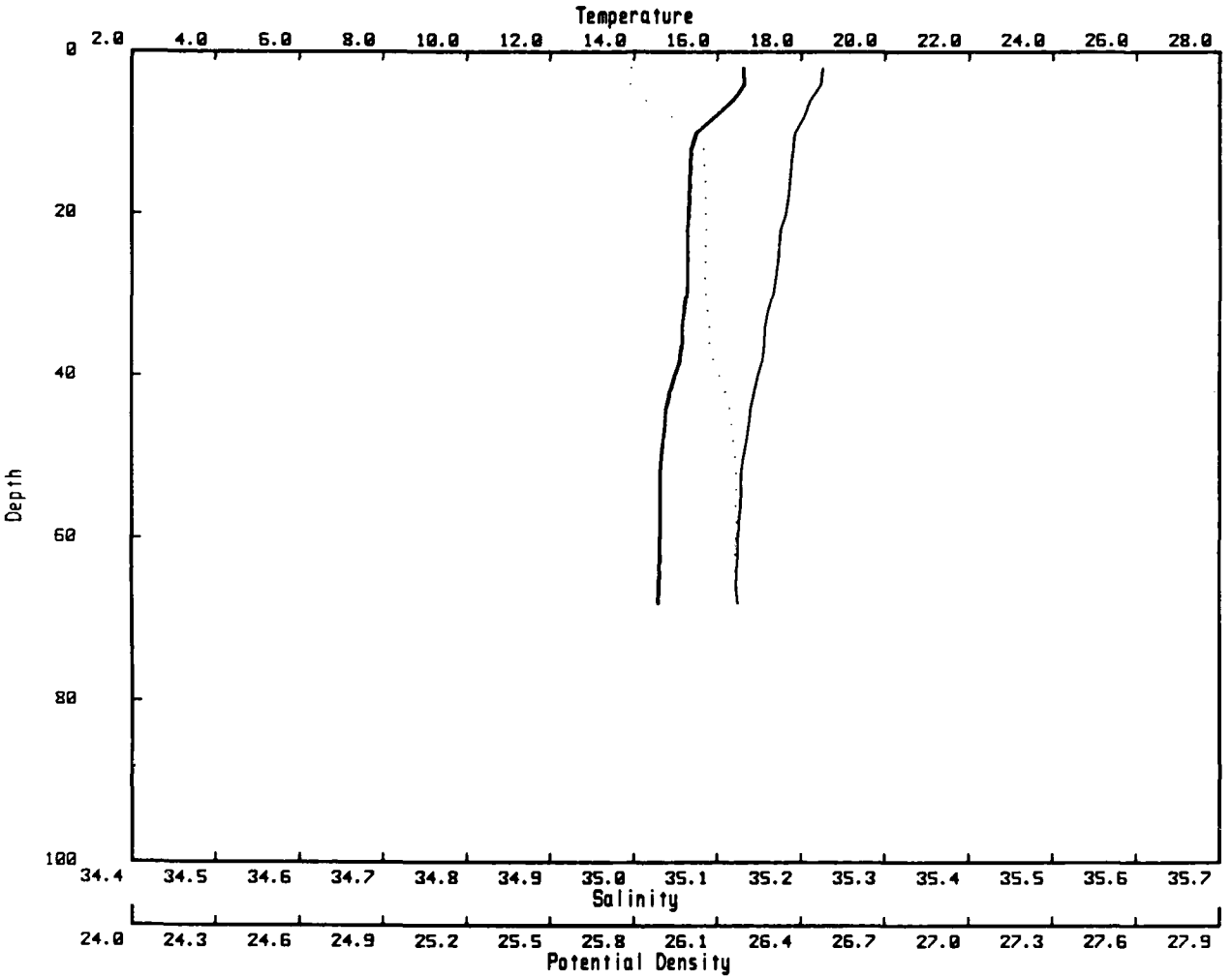
STATION PC7115 : 30 2.0 N 113 16.9 W 20/ 3/85 2334Z 158/ 163m



Day: 79.97 SST: 16.9 Tdry: 19.1 Twet: 14.8 Wspd: 7.3 CTD #: 3
NG2-2
ANC 24 OCT 85 CH:WD,CD. POS:CINDY RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.672	35.193	25.758	70.0	14.984	35.143	26.106
10.0	16.258	35.211	25.869	80.0	14.417	35.092	26.190
20.0	16.024	35.216	25.927	90.0	14.310	35.075	26.200
30.0	15.927	35.217	25.950	100.0	13.447	34.954	26.288
40.0	15.743	35.214	25.990	120.0	13.005	34.899	26.335
50.0	15.236	35.176	26.075	140.0	12.983	34.898	26.340
60.0	15.184	35.167	26.080				

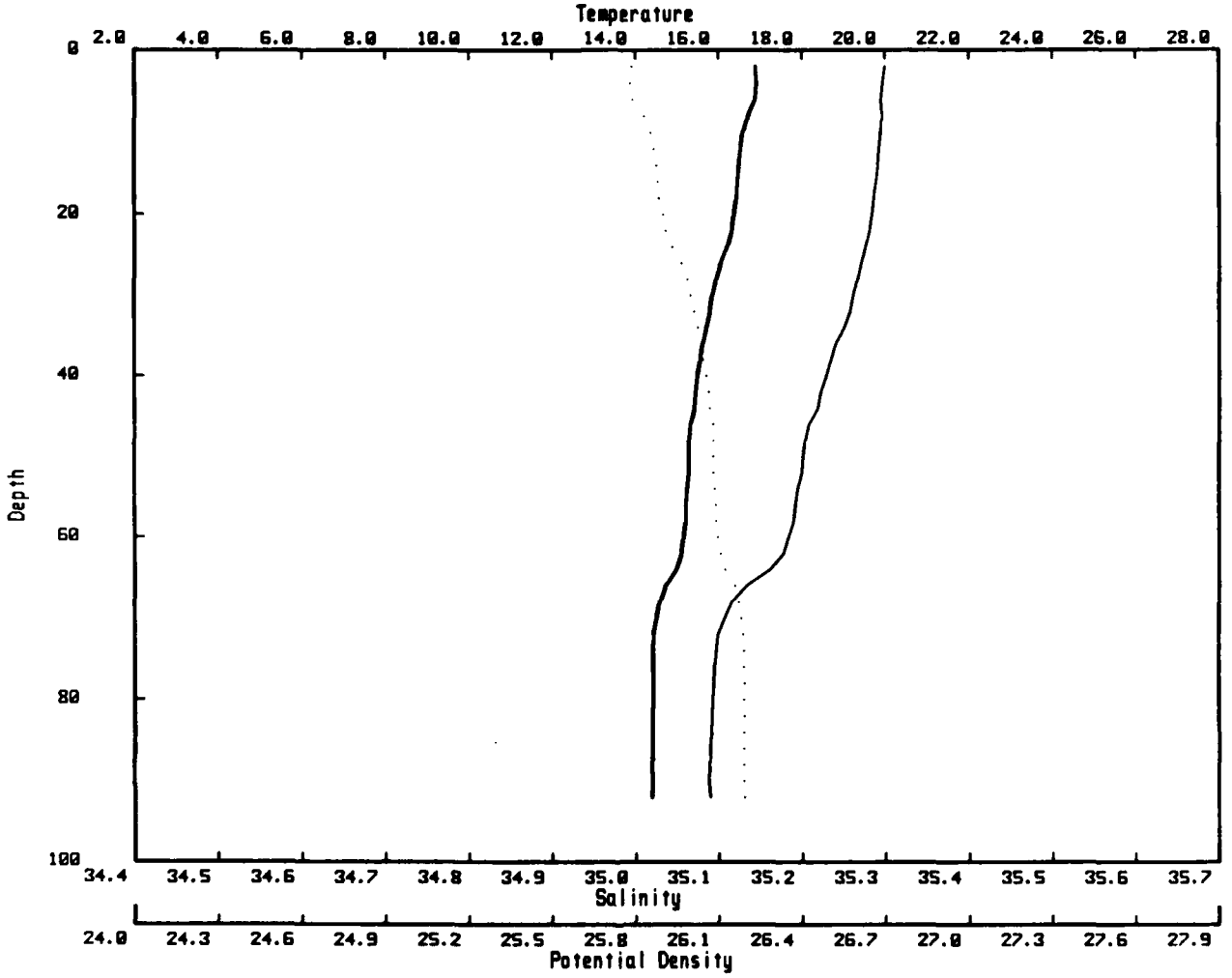
STATION PC7116 : 29 53.4 N 112 45.6 W 20/ 3/85 245Z 68/ 73m



Day: 80.10 SST: 17.0 Tdry: 17.4 Twet: 15.6 Wspd: 8.3 CTD #: 3
NG2-1.
ANC 24 OCT 85 CH:WD,CD. POS:CINDY RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.634	35.226	25.792	40.0	14.987	35.149	26.109
10.0	15.492	35.193	26.030	50.0	14.673	35.132	26.165
20.0	15.321	35.182	26.060	60.0	14.632	35.125	26.169
30.0	15.281	35.167	26.057				

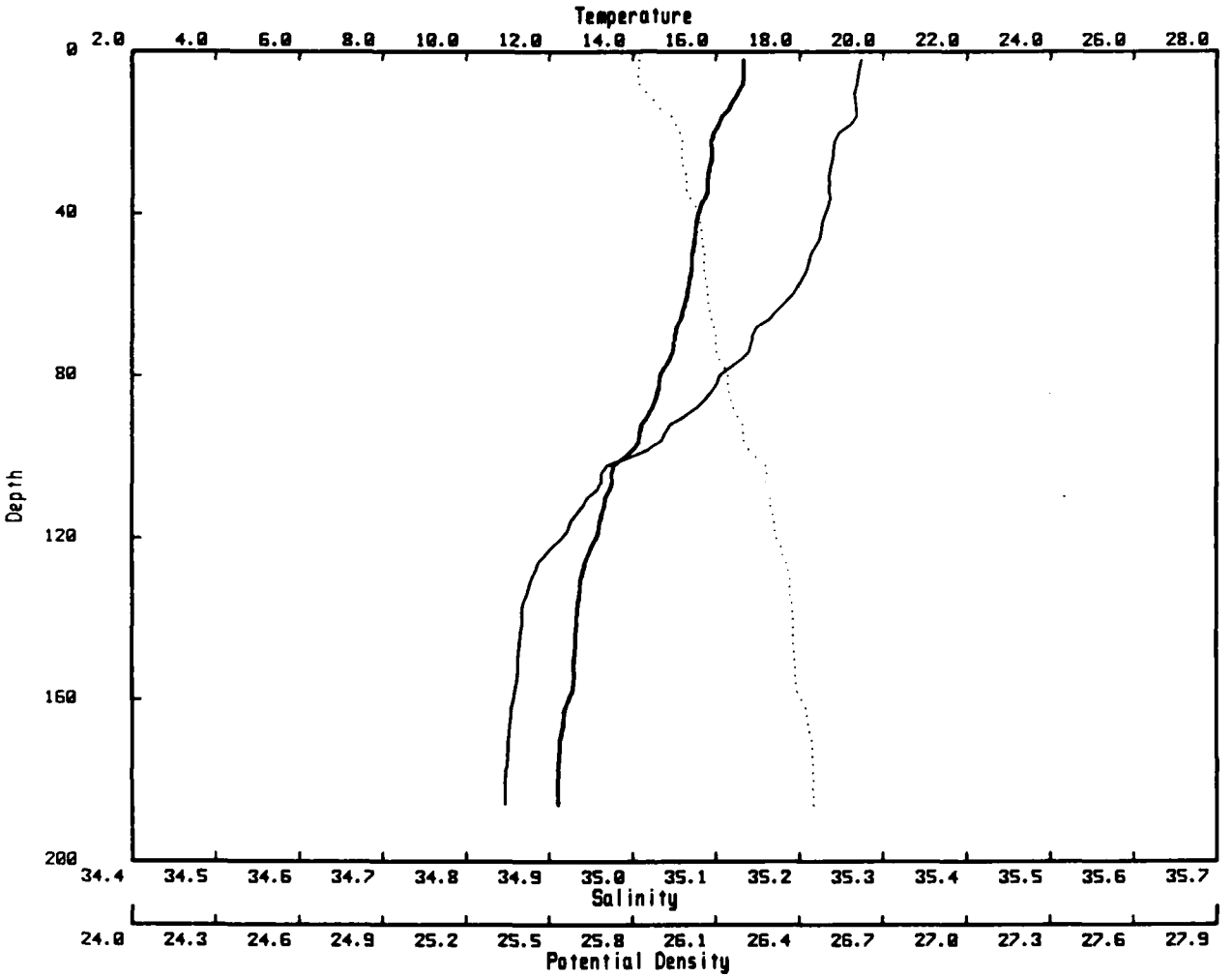
STATION PC7117 : 29 50.4 N 112 58.1 W 20/ 3/85 416Z 92/ 93m



Day: 80.17 SST: 17.2 Tdry: 17.0 Twet: 15.8 Wspd: 3.3 CTD #: 3
NG2-34.AT LAST.
ANC 24 OCT 85 CH:WD,CD,T. POS:CINDY RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.896	35.300	25.787	50.0	15.293	35.202	26.082
10.0	16.584	35.295	25.857	60.0	15.159	35.184	26.099
20.0	16.368	35.284	25.900	70.0	14.511	35.107	26.181
30.0	15.855	35.262	26.001	80.0	14.415	35.093	26.191
40.0	15.498	35.229	26.057	90.0	14.402	35.088	26.191

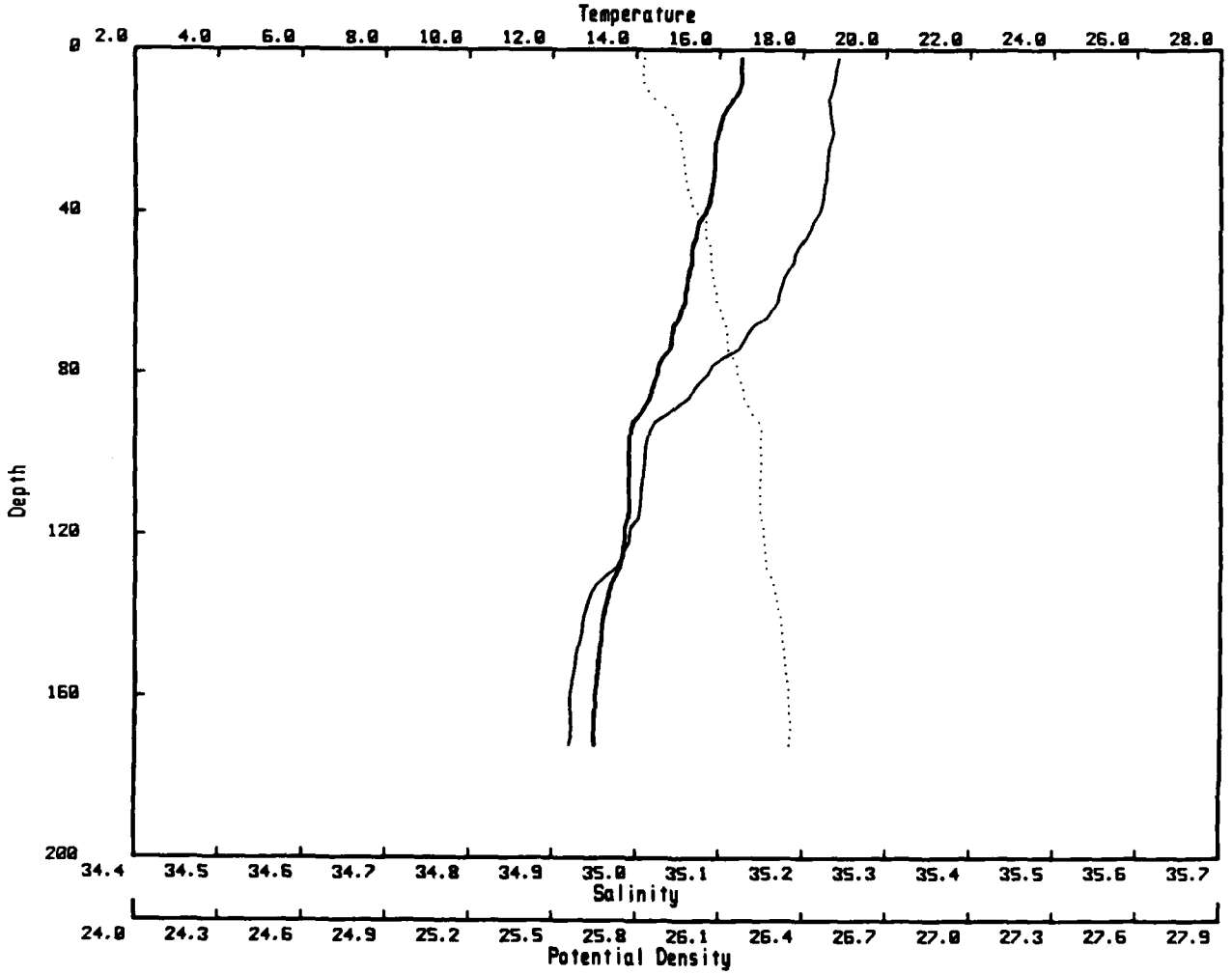
STATION PC7118 : 29 47.5 N 113 12.9 W 20/ 3/85 600Z 184/ 189m



Day: 80.25 SST: 16.9 Tdry: 16.8 Twet: 14.9 Wspd: 9.0 CTD #: 3
NG2-33.
ANC 15 OCT 85 CH:WD,CD. POS:ANC RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.657	35.274	25.824	80.0	14.668	35.105	26.146
10.0	16.530	35.266	25.848	90.0	14.360	35.062	26.179
20.0	15.938	35.247	25.970	100.0	13.812	34.997	26.245
30.0	15.814	35.236	25.990	120.0	13.138	34.916	26.322
40.0	15.577	35.231	26.041	140.0	12.663	34.867	26.379
50.0	15.435	35.214	26.060	160.0	12.467	34.857	26.411
60.0	15.313	35.192	26.071	180.0	12.217	34.847	26.452
70.0	15.017	35.144	26.099				

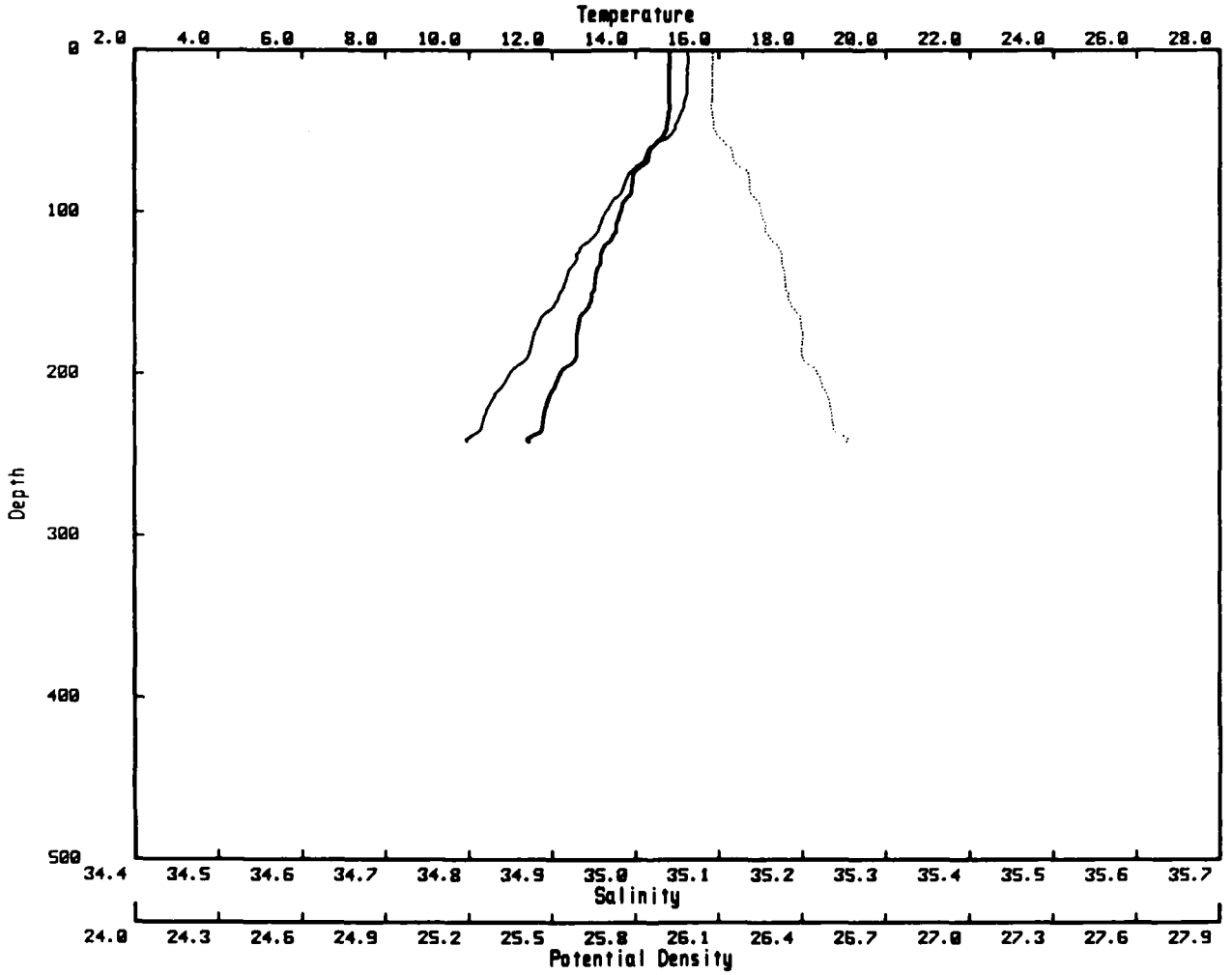
STATION PC7119 : 29 47.2 N 113 22.4 W 21/ 3/85 710Z 172/ 177m



Day: 80.30 SST: 16.7 Tdry: 16.7 Twet: 14.8 Wspd: 2.5 CTD #: 3
NG2-32
ANC 15 OCT 85 CH/;WD,CD. POS:SHL/?

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.536	35.243	25.828	70.0	14.857	35.134	26.127
10.0	16.454	35.234	25.841	80.0	14.510	35.086	26.165
20.0	15.960	35.236	25.957	90.0	14.082	35.037	26.219
30.0	15.860	35.228	25.974	100.0	13.838	35.011	26.251
40.0	15.638	35.218	26.017	120.0	13.722	34.992	26.261
50.0	15.319	35.190	26.067	140.0	13.221	34.938	26.323
60.0	15.164	35.171	26.087	160.0	13.025	34.921	26.350

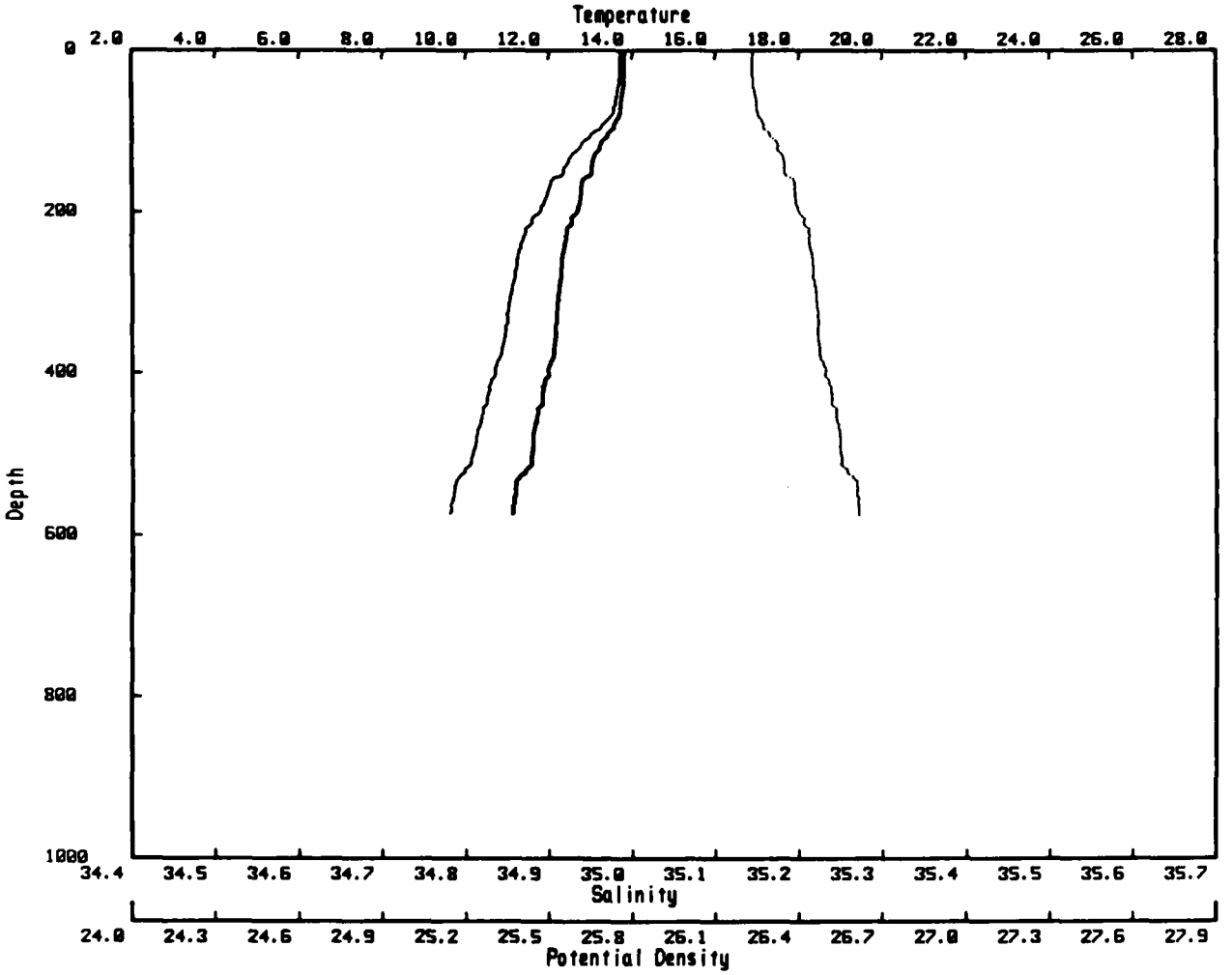
STATION PC7120 : 29 44.6 N 113 31.6 W 21/ 3/85 822Z 241/ 250m



Day: 80.34 SST: 15.7 Tdry: 16.4 Twet: 13.8 Wspd: 13.3 CTD #: 3
NG2-31
ANC 15 OCT 85 CH:WD,CD. POS:SHL/?

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	14.818	35.062	26.078	80.0	13.939	34.989	26.212
10.0	14.823	35.063	26.078	90.0	13.829	34.980	26.228
20.0	14.817	35.062	26.079	100.0	13.649	34.964	26.254
30.0	14.819	35.060	26.077	120.0	13.273	34.937	26.311
40.0	14.797	35.054	26.077	140.0	13.056	34.918	26.340
50.0	14.717	35.045	26.088	160.0	12.813	34.898	26.374
60.0	14.366	35.017	26.143	180.0	12.593	34.876	26.401
70.0	14.230	35.006	26.163	200.0	12.198	34.849	26.458

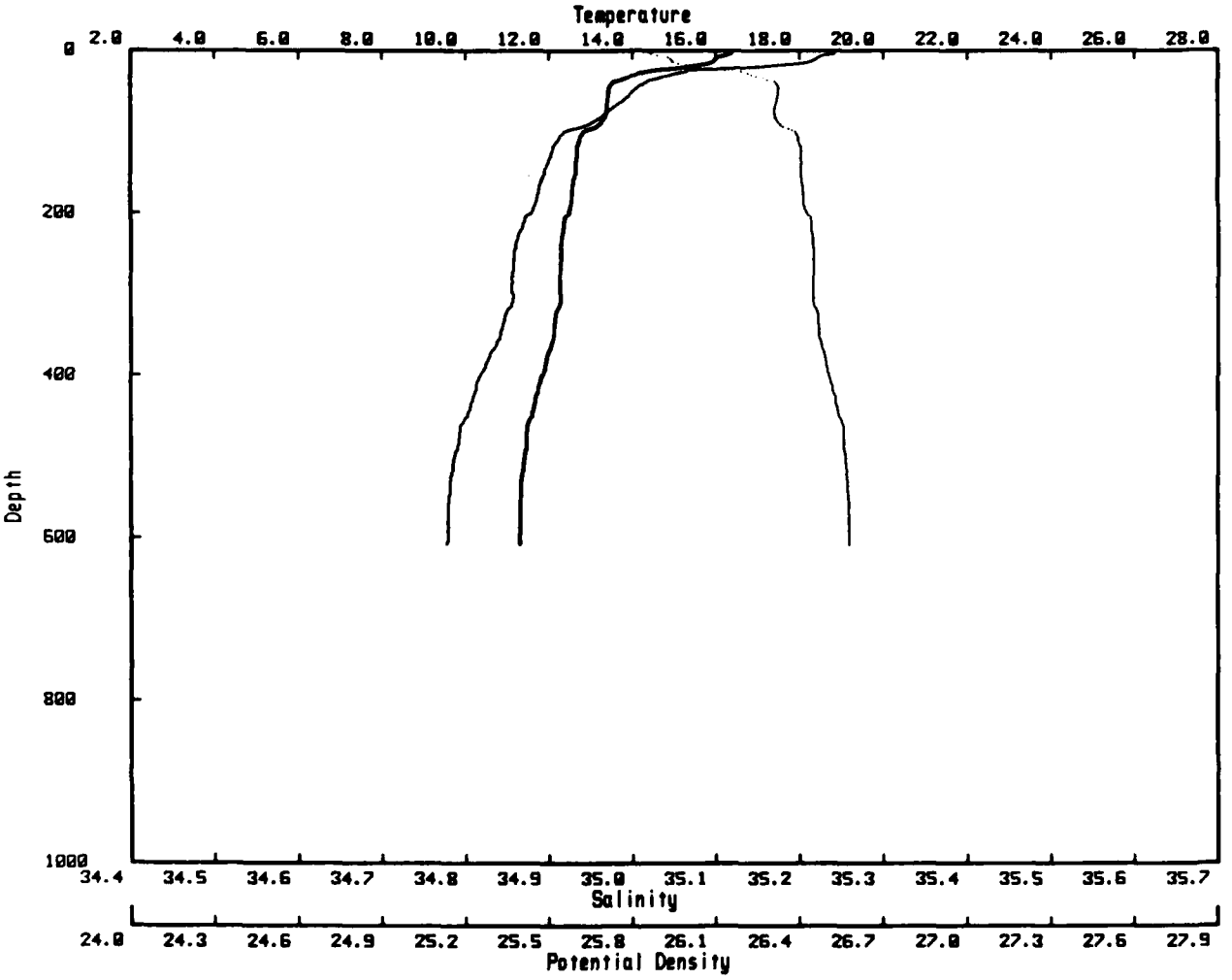
STATION PC7121 : 29 41.5 N 113 40.0 W 21/ 3/85 937Z 572/ 577m



Day: 80.39 SST: 17.7 Tdry: 13.9 Twet: 13.4 Wspd: 16.7 CTD #: 3
NG2-31 THE CORRECT VALUES FOR SST AND DRY BULB TEMP ARE RESP: 13.89 AND 17.33
ANC 15 OCT 85 CH:WD,CD. POS:SHL/RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	13.811	34.984	26.233	100.0	13.452	34.955	26.287
10.0	13.816	34.986	26.233	120.0	13.214	34.937	26.323
20.0	13.811	34.986	26.235	140.0	13.037	34.921	26.347
30.0	13.814	34.986	26.234	160.0	12.795	34.902	26.381
40.0	13.803	34.985	26.236	180.0	12.751	34.896	26.385
50.0	13.771	34.982	26.241	200.0	12.639	34.887	26.401
60.0	13.743	34.981	26.246	300.0	12.214	34.854	26.461
70.0	13.721	34.978	26.249	400.0	11.978	34.835	26.494
80.0	13.691	34.976	26.254	500.0	11.583	34.808	26.550
90.0	13.573	34.966	26.271				

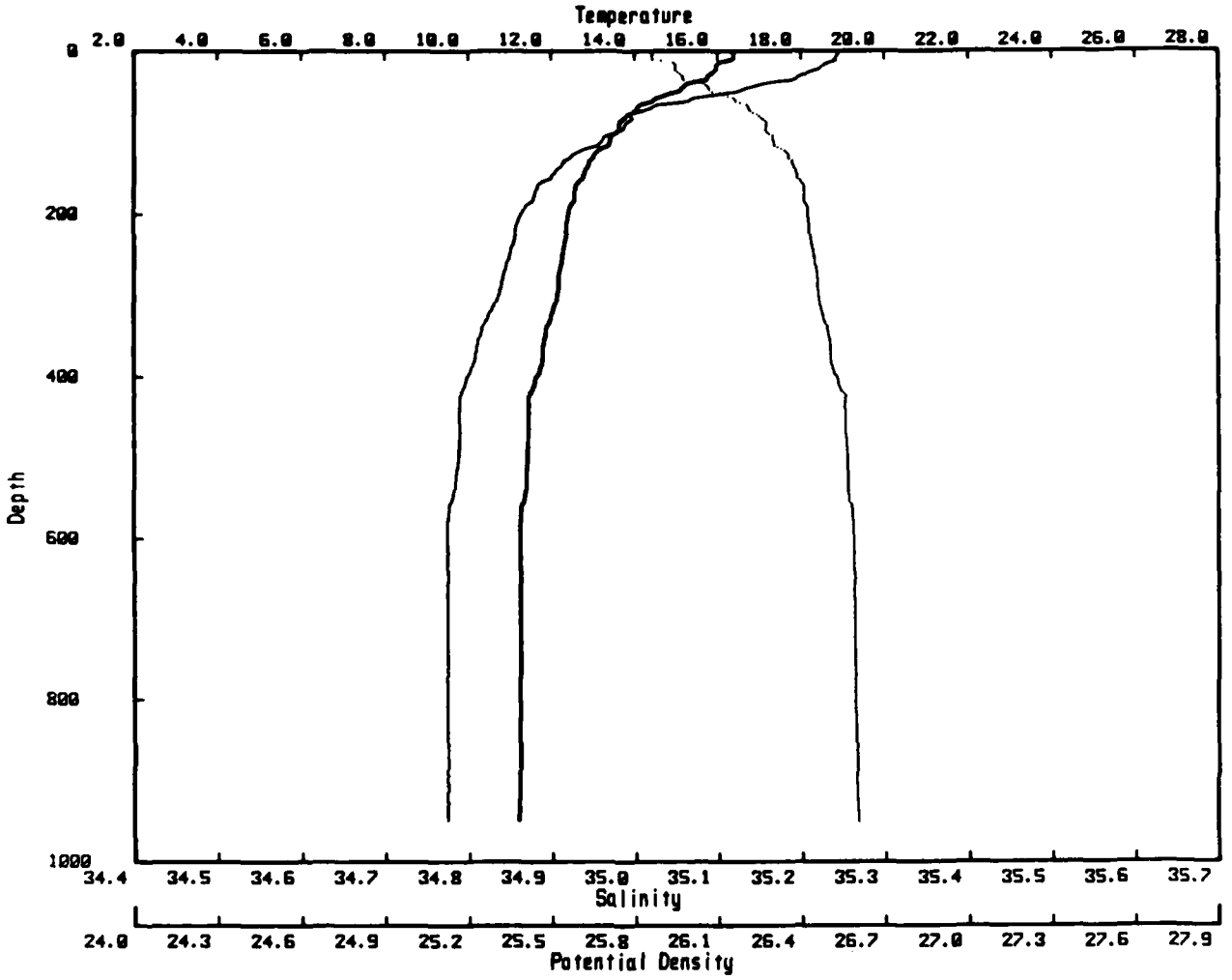
STATION PC7122 : 29 39.9 N 113 48.0 W 21/ 3/85 1105Z 608/ 613m



Day: 80.46 SST: 16.4 Tdry: 17.2 Twet: 14.4 Wspd: 8.2 CTD #: 3
NG2-29 *** uptrace ***
ANC 15 OCT 85 CH:WD,CD. POS:SHL/RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.366	35.242	25.867	100.0	12.825	34.918	26.386
10.0	15.992	35.220	25.937	120.0	12.670	34.905	26.407
20.0	15.320	35.153	26.038	140.0	12.647	34.898	26.406
30.0	14.062	35.044	26.227	160.0	12.604	34.891	26.410
40.0	13.516	35.015	26.319	180.0	12.560	34.886	26.415
50.0	13.437	35.001	26.325	200.0	12.475	34.878	26.426
60.0	13.414	34.990	26.321	300.0	12.285	34.858	26.450
70.0	13.402	34.976	26.313	400.0	11.836	34.818	26.508
80.0	13.351	34.964	26.314	500.0	11.415	34.787	26.564
90.0	13.214	34.948	26.330	600.0	11.310	34.779	26.580

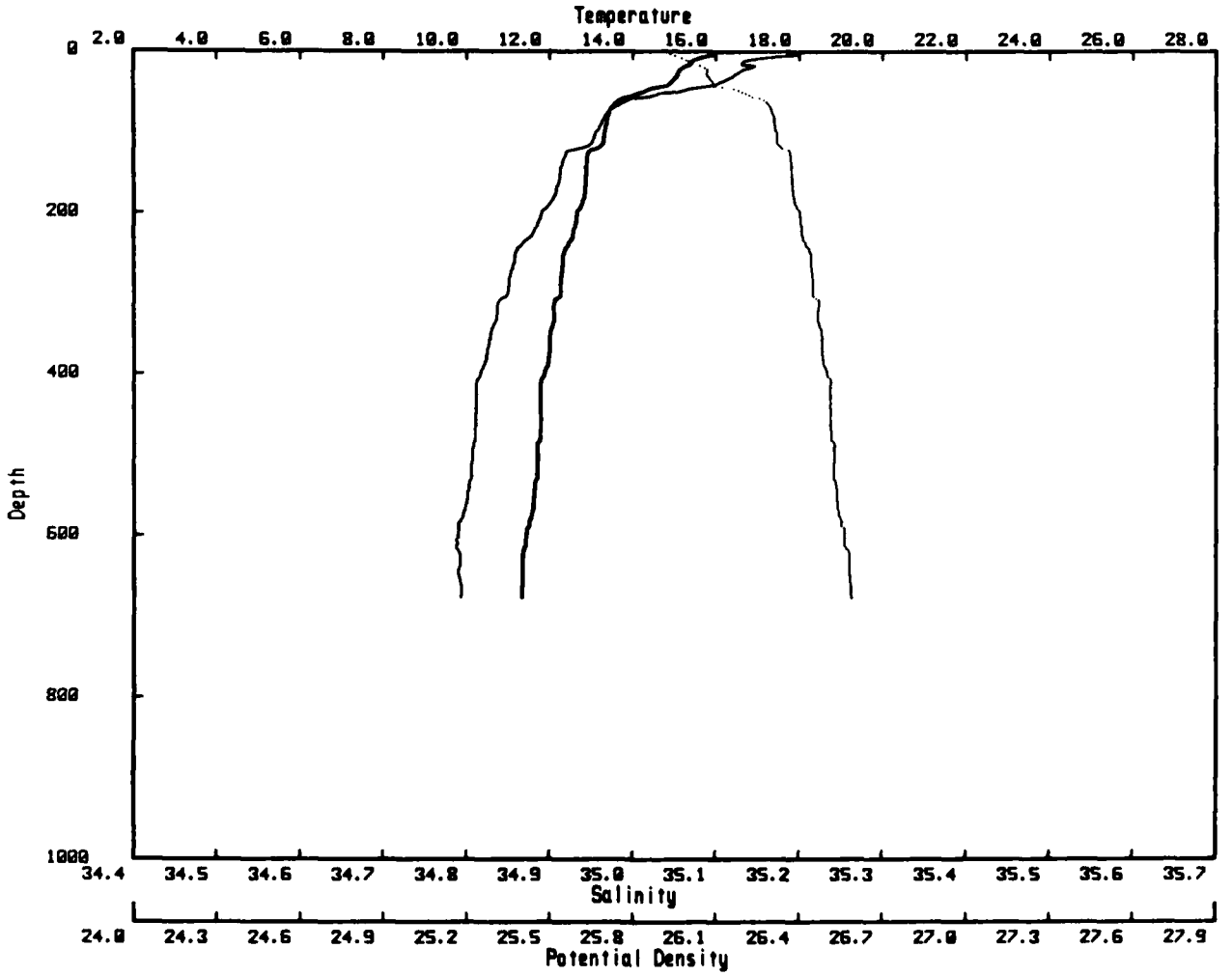
STATION PC7123 : 29 38.6 N 113 54.0 W 21/ 3/85 1216Z 949/ 954m



Day: 80.51 SST: 16.5 Tdry: 17.3 Twet: 13.9 Wspd: 6.6 CTD #: 3
NG2-28
ANC 23 OCT 85 CH:WD,CD. POS:ANC RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.382	35.245	25.866	140.0	12.874	34.912	26.372
10.0	16.363	35.240	25.867	160.0	12.647	34.888	26.399
20.0	15.969	35.224	25.946	180.0	12.554	34.879	26.411
30.0	15.778	35.201	25.972	200.0	12.415	34.864	26.427
40.0	15.290	35.157	26.048	300.0	12.134	34.836	26.462
50.0	15.028	35.123	26.081	400.0	11.628	34.798	26.531
60.0	14.450	35.067	26.163	500.0	11.413	34.788	26.566
70.0	14.055	35.019	26.210	600.0	11.244	34.775	26.589
80.0	13.785	34.995	26.249	700.0	11.247	34.775	26.591
90.0	13.632	34.989	26.276	800.0	11.238	34.775	26.595
100.0	13.576	34.979	26.280	900.0	11.229	34.775	26.599
120.0	13.188	34.940	26.330				

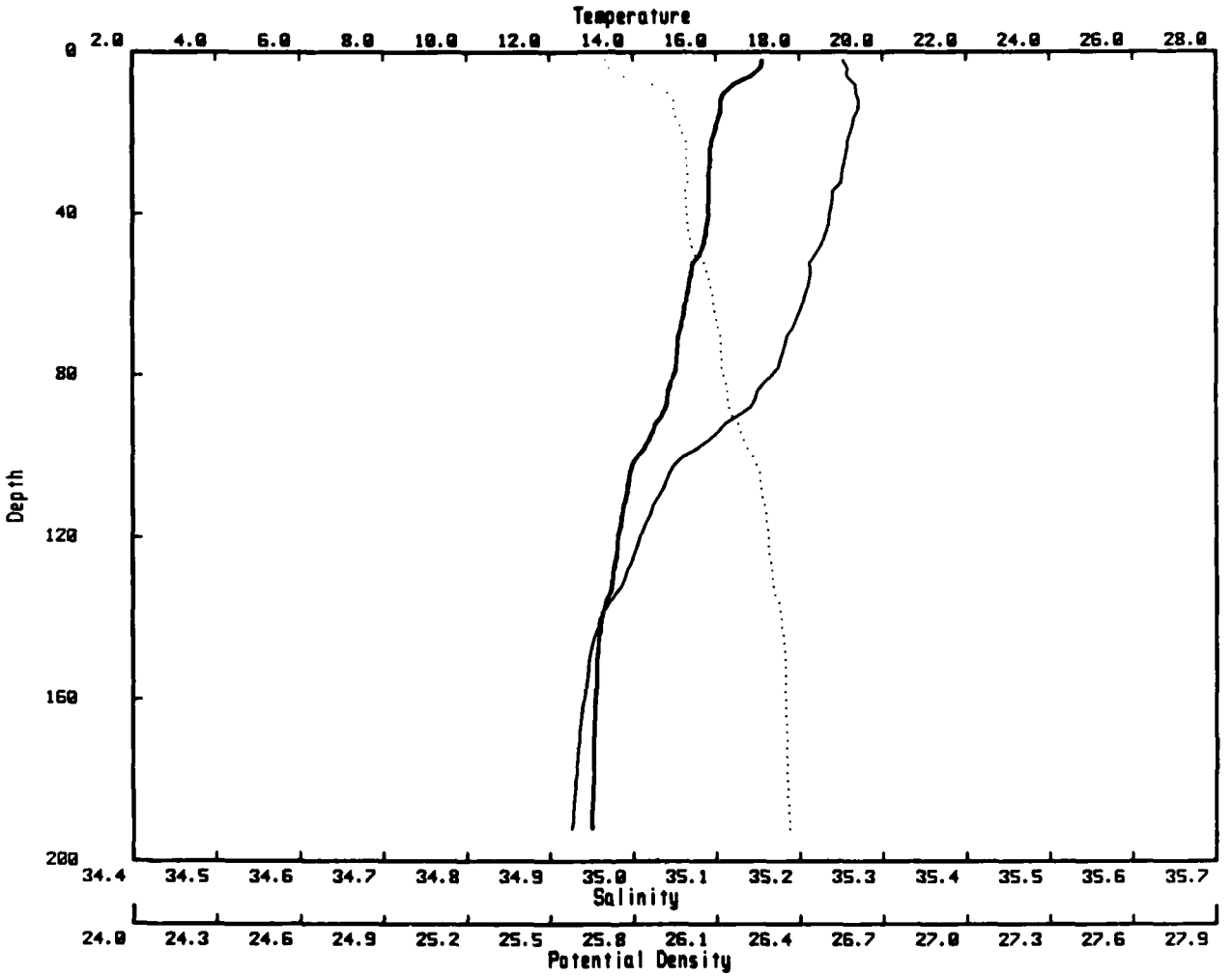
STATION PC7124 : 29 38.4 N 113 57.5 W 21/ 3/85 1323Z 676/ 681m



Day: 80.55 SST: 16.1 Tdry: 16.3 Twet: 14.5 Wspd: 7.0 CTD #: 3
NG2-27
ANC 16 OCT 85 CH:WD,CD. POS:SHL/RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	15.934	35.201	25.935	100.0	13.306	34.955	26.317
10.0	15.483	35.140	25.991	120.0	13.133	34.936	26.338
20.0	15.187	35.142	26.059	140.0	12.886	34.915	26.372
30.0	15.061	35.121	26.071	160.0	12.864	34.911	26.374
40.0	14.889	35.101	26.093	180.0	12.814	34.904	26.379
50.0	14.249	35.052	26.194	200.0	12.653	34.890	26.401
60.0	13.668	34.995	26.273	300.0	12.259	34.849	26.448
70.0	13.472	34.976	26.299	400.0	11.864	34.816	26.501
80.0	13.382	34.966	26.310	500.0	11.703	34.807	26.527
90.0	13.356	34.961	26.311	600.0	11.439	34.789	26.564

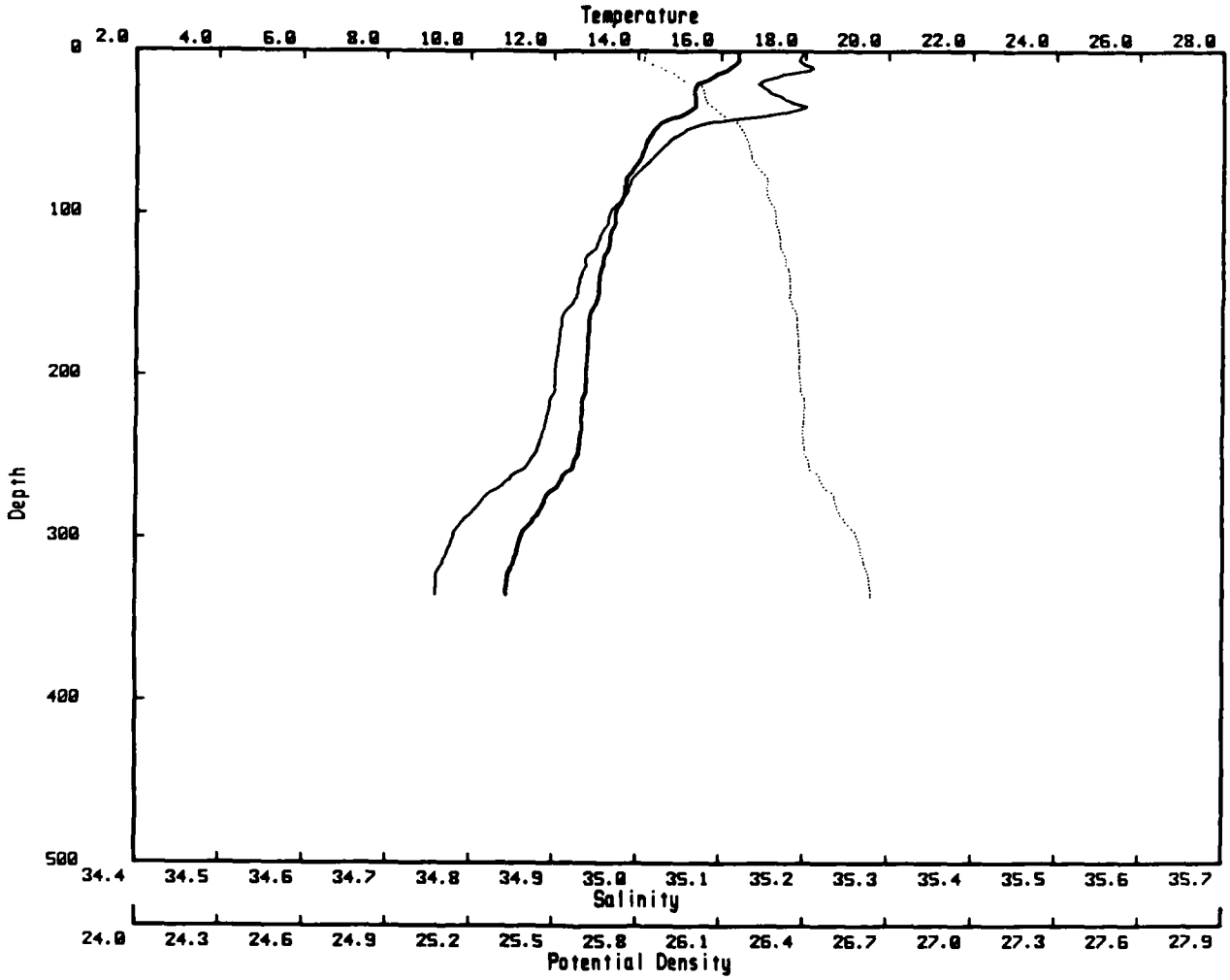
STATION PC7125 : 29 46.0 N 113 22.0 W 21/ 3/85 248Z 194/ 199m



Day: 81.10 SST: 17.1 Tdry: 18.1 Twet: 16.1 Wspd: 8.2 CTD #: 3
ES-1 *** uptrace ***
ANC 16 OCT 85 CH:WD,CD. POS:SHL/?

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	17.102	35.253	25.702	80.0	14.972	35.166	26.127
10.0	16.199	35.269	25.927	90.0	14.690	35.126	26.158
20.0	15.951	35.261	25.978	100.0	14.110	35.061	26.232
30.0	15.829	35.251	25.999	120.0	13.642	35.008	26.290
40.0	15.805	35.236	25.993	140.0	13.237	34.960	26.336
50.0	15.596	35.218	26.027	160.0	13.094	34.941	26.351
60.0	15.290	35.206	26.086	180.0	13.031	34.930	26.356
70.0	15.090	35.185	26.115				

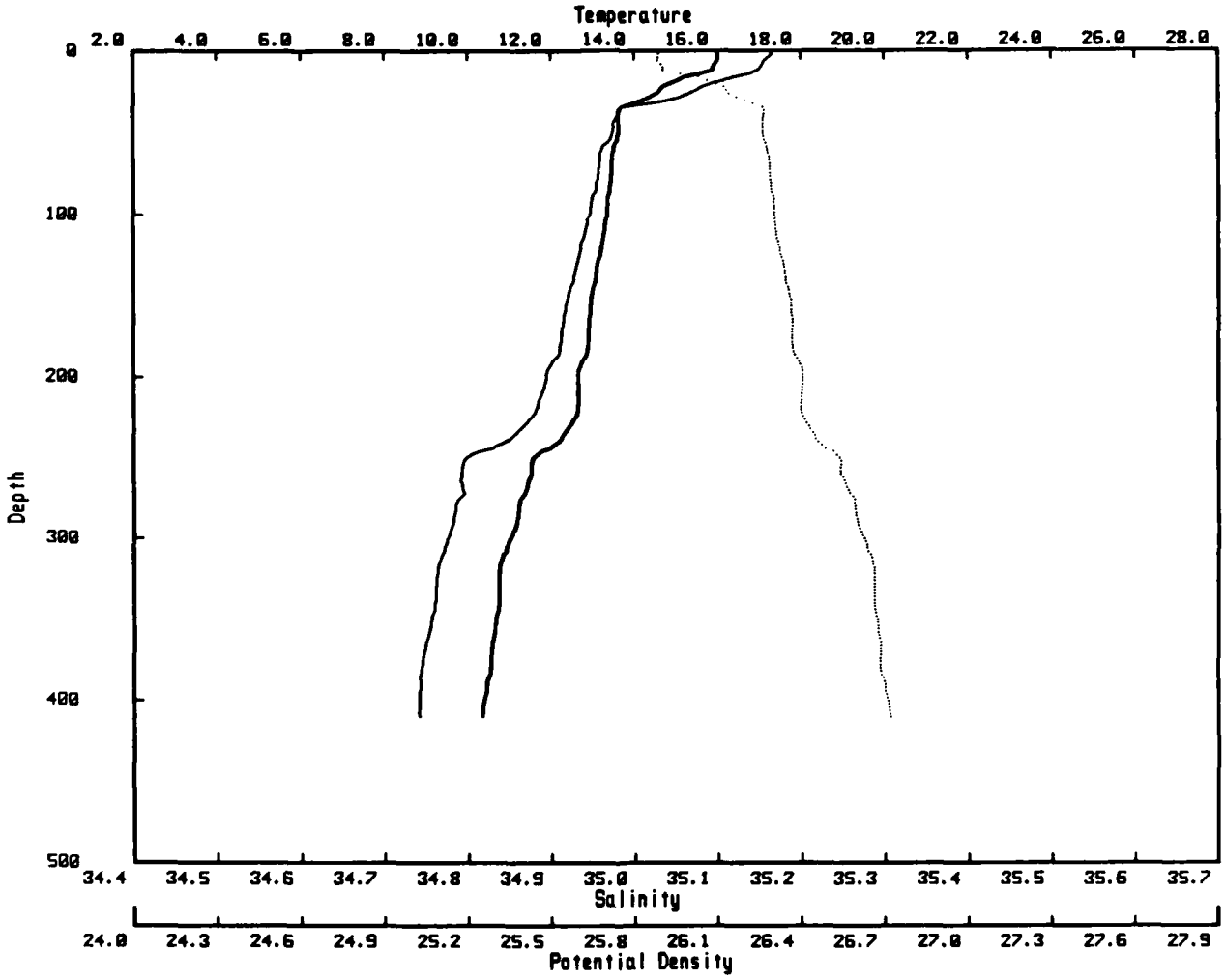
STATION PC7126 : 29 34.7 N 113 15.4 W 21/ 3/85 430Z 337/ 342m



Day: 81.18 SST: 16.8 Tdry: 19.0 Twet: 15.9 Wspd: 10.2 CTD #: 3
ES-2
ANC 16 OCT 85 CH:WD,CD. POS:SHL/RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.398	35.197	25.825	90.0	13.642	34.983	26.270
10.0	16.198	35.209	25.881	100.0	13.456	34.966	26.295
20.0	15.404	35.143	26.011	120.0	13.313	34.951	26.313
30.0	15.377	35.177	26.044	140.0	13.073	34.930	26.346
40.0	14.996	35.151	26.109	160.0	12.903	34.914	26.369
50.0	14.333	35.054	26.178	180.0	12.820	34.906	26.379
60.0	14.144	35.028	26.198	200.0	12.780	34.902	26.385
70.0	13.963	35.010	26.223	300.0	11.204	34.779	26.592
80.0	13.699	34.991	26.264				

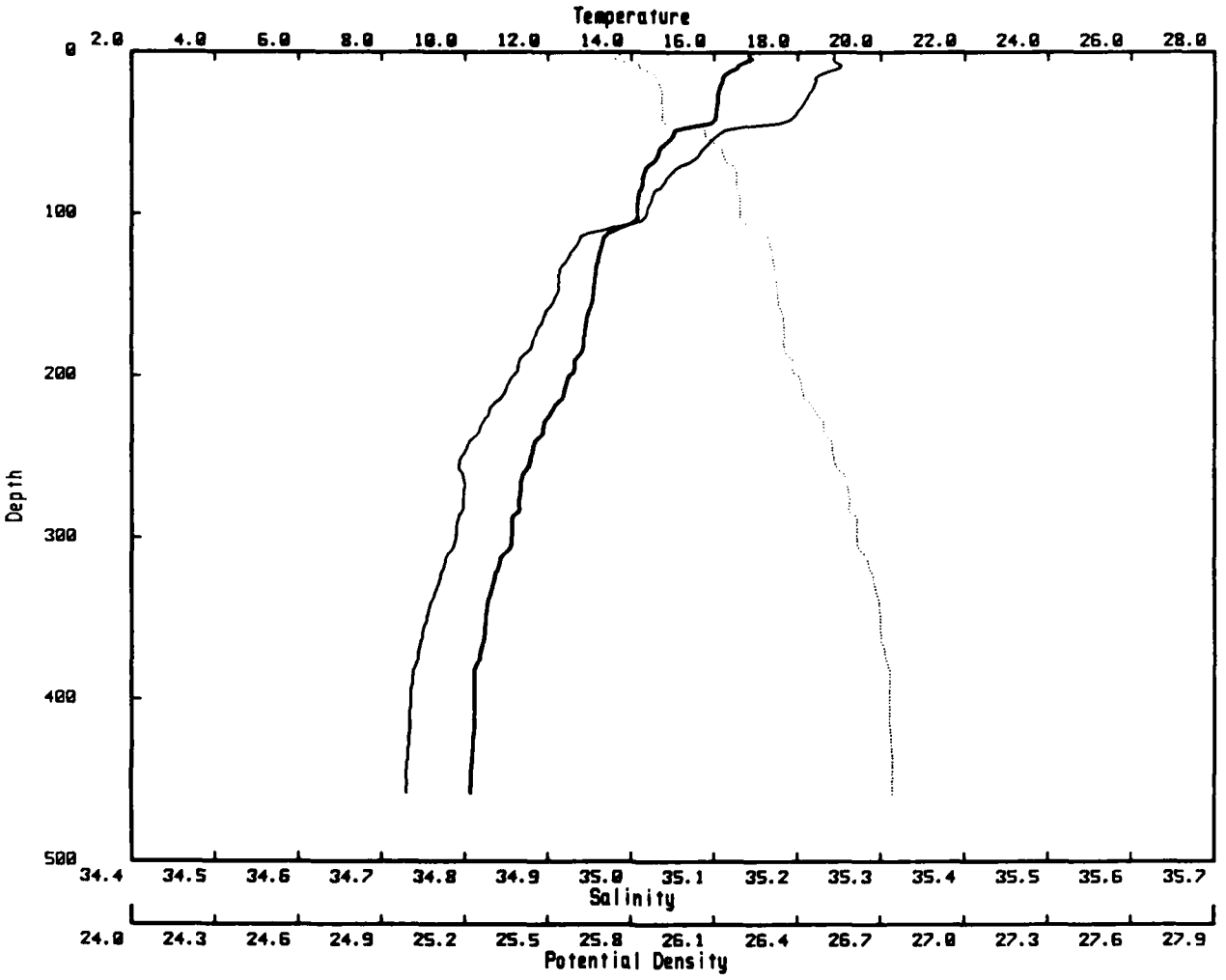
STATION PC7127 : 29 28.0 N 113 11.5 W 21/ 3/85 621Z 409/ 414m



Day: 81.26 SST: 16.2 Tdry: 19.6 Twet: 14.9 Wspd: 23.8 CTD #: 3
ES-3 AT LAST.
ANC 16 OCT 85 CH:WD,CD. POS:SHL/?

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.016	35.166	25.890	90.0	13.355	34.949	26.302
10.0	15.904	35.152	25.905	100.0	13.338	34.946	26.304
20.0	14.849	35.093	26.095	120.0	13.204	34.936	26.324
30.0	14.193	35.041	26.197	140.0	13.068	34.927	26.345
40.0	13.632	34.979	26.267	160.0	12.931	34.916	26.364
50.0	13.630	34.974	26.264	180.0	12.889	34.911	26.370
60.0	13.507	34.961	26.280	200.0	12.644	34.894	26.406
70.0	13.457	34.958	26.288	300.0	10.997	34.775	26.627
80.0	13.422	34.954	26.292	400.0	10.383	34.742	26.712

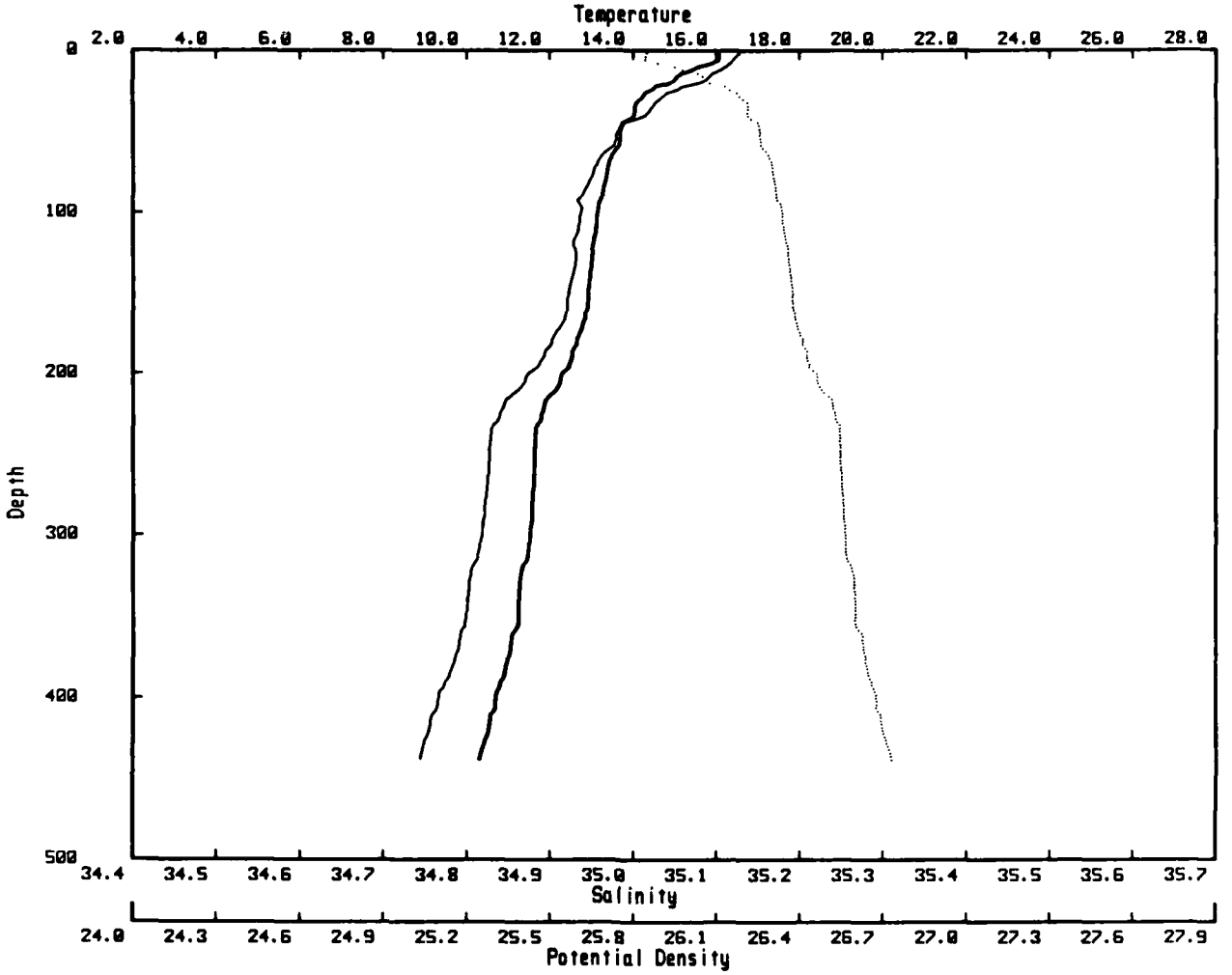
STATION PC7128 : 29 18.4 N 113 6.0 W 22/ 3/85 742Z 456/ 461m



Day: 81.31 SST: 17.2 Tdry: 17.9 Twet: 15.1 Wspd: 17.8 CTD #: 3
ES-4
ANC 16 OCT 85 CH:WD,CD. 23705.PTAROCOSA POS:ANC RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.837	35.244	25.758	90.0	14.168	35.025	26.192
10.0	16.550	35.250	25.831	100.0	14.144	35.018	26.192
20.0	16.157	35.220	25.899	120.0	13.298	34.934	26.303
30.0	16.079	35.209	25.909	140.0	13.125	34.913	26.323
40.0	16.027	35.195	25.911	160.0	12.973	34.897	26.341
50.0	15.030	35.108	26.068	180.0	12.863	34.881	26.352
60.0	14.685	35.086	26.127	200.0	12.499	34.858	26.406
70.0	14.412	35.060	26.166	300.0	11.121	34.789	26.615
80.0	14.277	35.041	26.181	400.0	10.232	34.735	26.733

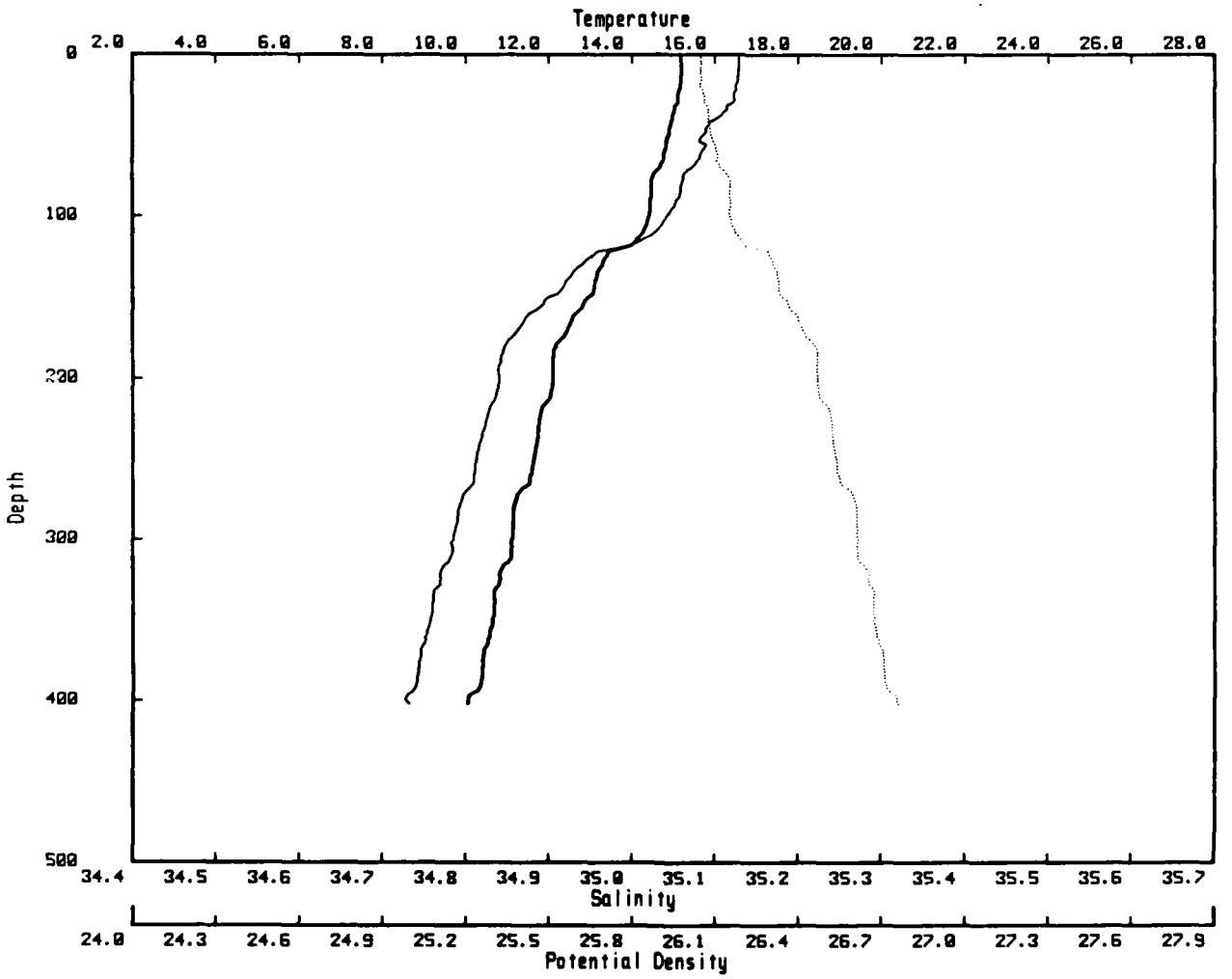
STATION PC7129 : 29 11.2 N 113 .0 W 21/ 3/85 919Z 438/ 443m



Day: 80.38 SST: 16.5 Tdry: 16.9 Twet: 15.4 Wspd: 4.7 CTD #: 3
ES-5
ANC 16 OCT 85 CH:WD,CD. POS:SHL/CINDY RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.062	35.128	25.850	90.0	13.243	34.937	26.316
10.0	15.563	35.111	25.951	100.0	13.141	34.937	26.337
20.0	14.874	35.079	26.079	120.0	13.022	34.928	26.354
30.0	14.156	35.032	26.198	140.0	12.949	34.926	26.368
40.0	14.017	35.014	26.214	160.0	12.878	34.920	26.378
50.0	13.685	34.981	26.258	180.0	12.641	34.902	26.412
60.0	13.607	34.972	26.267	200.0	12.271	34.873	26.462
70.0	13.395	34.956	26.299	300.0	11.517	34.818	26.565
80.0	13.320	34.947	26.308	400.0	10.691	34.766	26.677

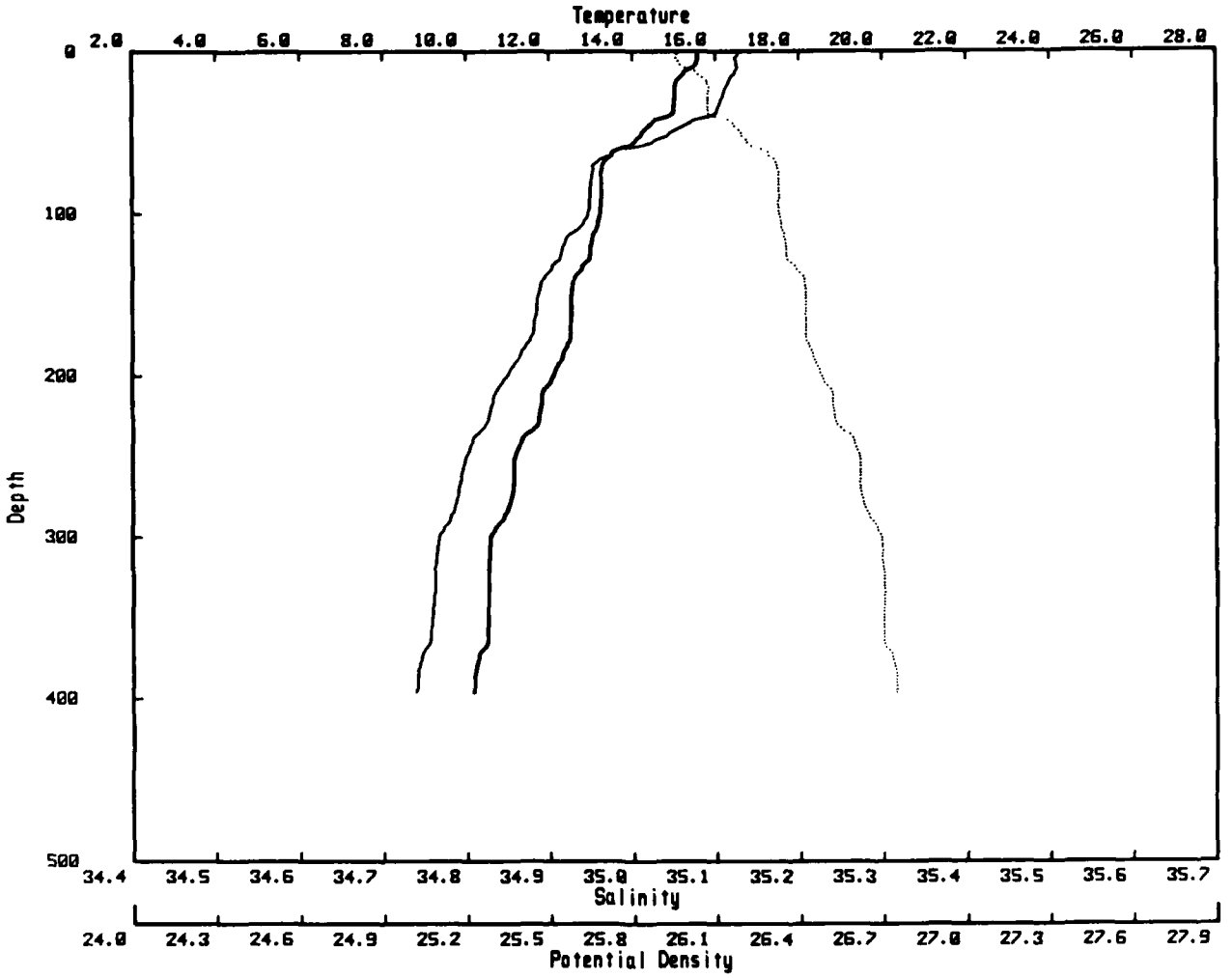
STATION PC7130 : 29 4.0 N 112 54.5 W 22/ 3/85 1042Z 401/ 406m



Day: 81.43 SST: 15.5 Tdry: 16.3 Twet: 15.0 Wspd: 7.7 CTD #: 3
ES-6
ANC 16 OCT 85 CH:WD,CD. 273010.5 I.ESTANQUE POS:ANC RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	15.180	35.129	26.050	90.0	14.444	35.054	26.155
10.0	15.187	35.128	26.048	100.0	14.410	35.042	26.154
20.0	15.176	35.125	26.048	120.0	13.711	34.981	26.255
30.0	15.097	35.122	26.064	140.0	13.109	34.921	26.332
40.0	14.970	35.101	26.076	160.0	12.642	34.877	26.392
50.0	14.884	35.086	26.083	180.0	12.165	34.847	26.462
60.0	14.788	35.084	26.103	200.0	12.096	34.840	26.470
70.0	14.680	35.073	26.118	300.0	11.108	34.785	26.614
80.0	14.459	35.060	26.156	400.0	10.058	34.728	26.757

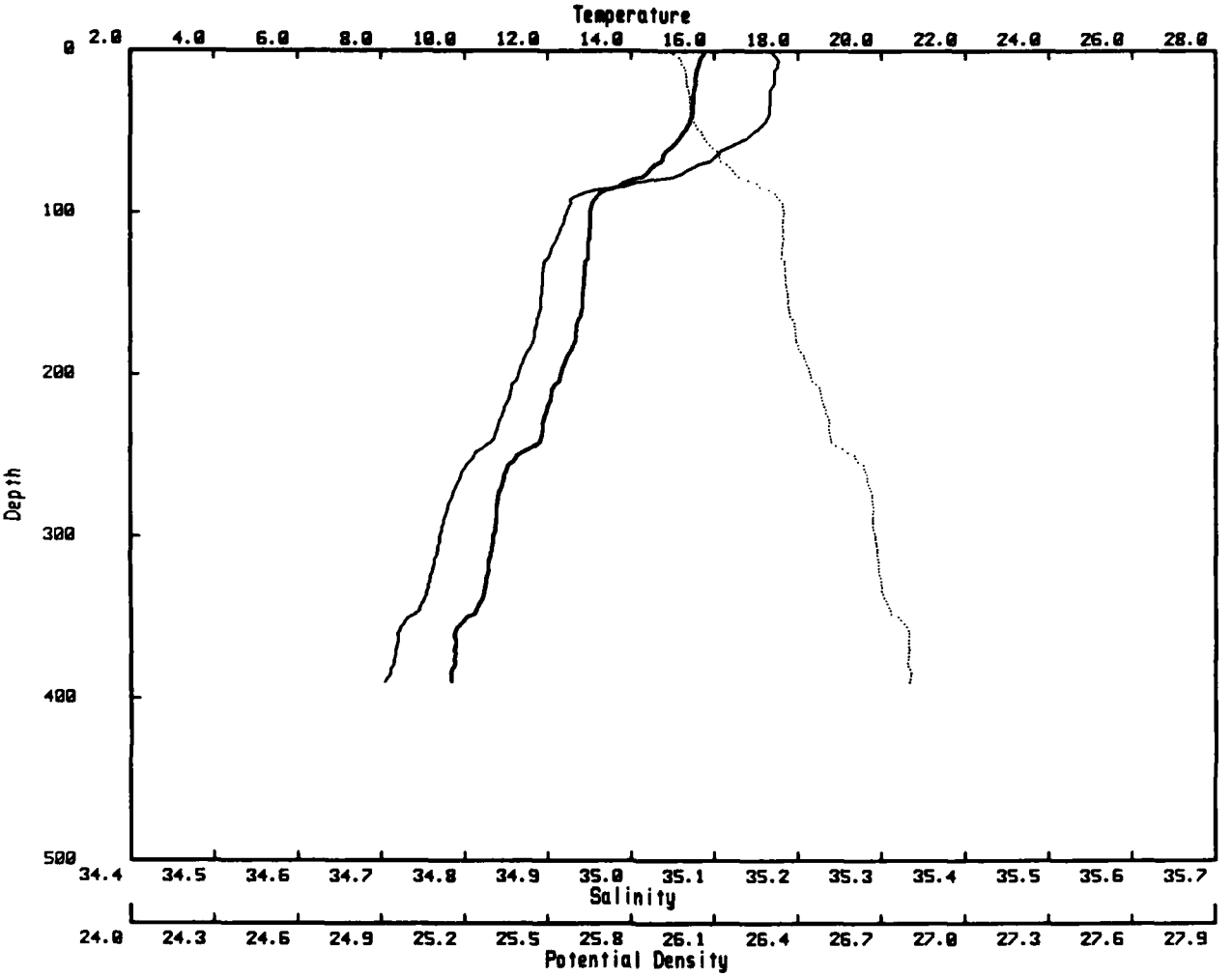
STATION PC7131 : 28 56.5 N 112 48.6 W 22/ 3/85 1201Z 396/ 409m



Day: 81.50 SST: 15.6 Tdry: 16.9 Twet: 14.1 Wspd: 4.0 CTD #: 3
ES-7
ANC 16 OCT 85 CH:WD,CD. 297@17.5 ESTANQUE POS:ANC RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	15.565	35.127	25.962	90.0	13.232	34.948	26.327
10.0	15.435	35.126	25.991	100.0	13.213	34.946	26.329
20.0	15.038	35.114	26.070	120.0	12.983	34.916	26.353
30.0	15.004	35.106	26.072	140.0	12.572	34.892	26.417
40.0	14.836	35.092	26.098	160.0	12.517	34.884	26.422
50.0	14.232	35.045	26.192	180.0	12.418	34.872	26.432
60.0	13.674	34.985	26.264	200.0	12.081	34.849	26.480
70.0	13.274	34.952	26.321	300.0	10.574	34.767	26.696
80.0	13.243	34.949	26.325				

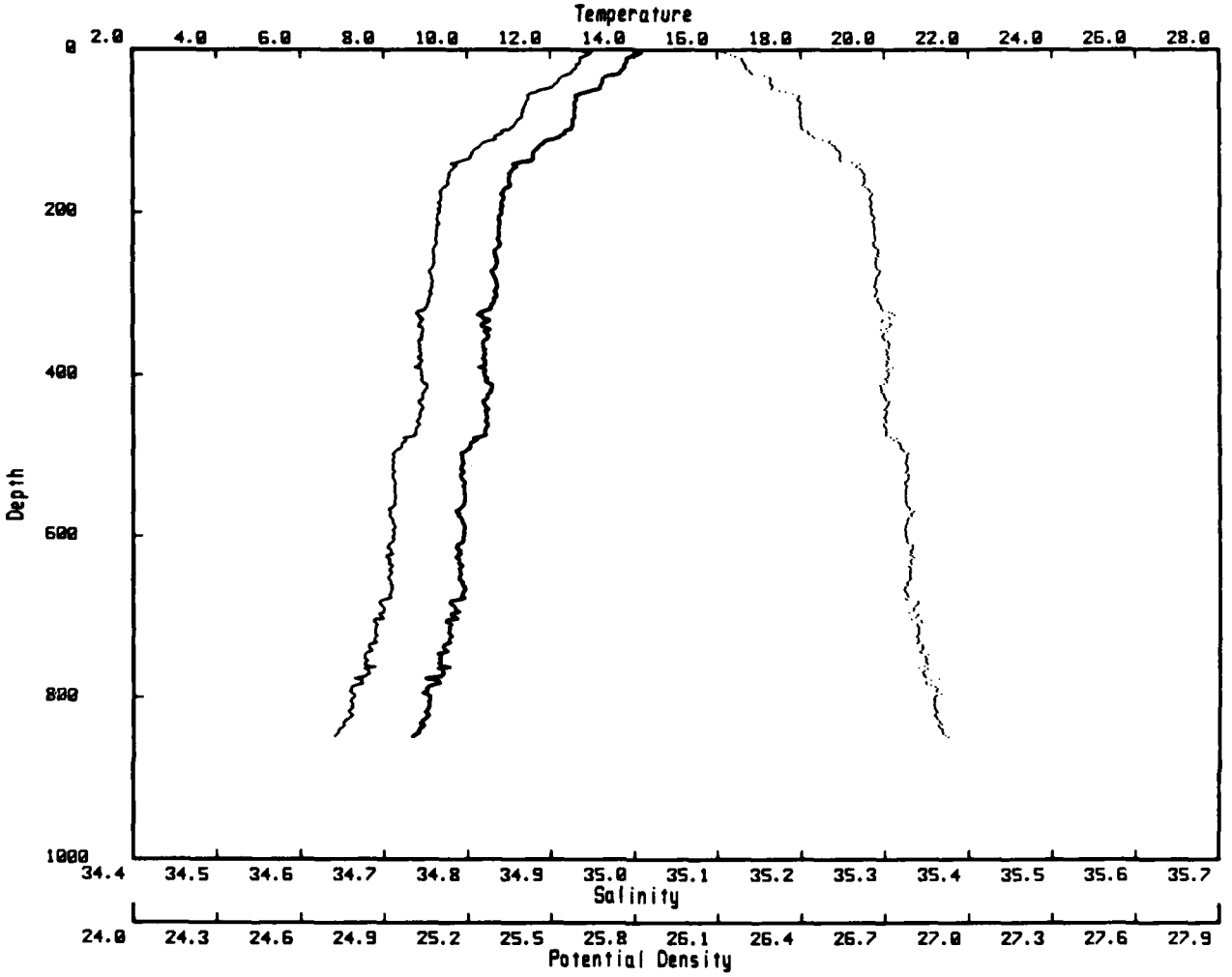
STATION PC7132 : 28 47.6 N 112 46.6 W 22/ 3/85 1801Z 389/ 394m



Day: 81.75 SST: 16.1 Tdry: 16.1 Twet: 13.9 Wspd: 12.5 CTD #: 3
ES-8 *** uptrace ***
ANC 16 OCT 85 CH:WD,CD. 59011.3PTWILLAR POS:ANC RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	15.757	35.170	25.952	90.0	13.177	34.933	26.326
10.0	15.607	35.176	25.991	100.0	13.023	34.923	26.350
20.0	15.553	35.172	26.000	120.0	12.980	34.907	26.347
30.0	15.489	35.167	26.011	140.0	12.882	34.894	26.357
40.0	15.461	35.165	26.016	160.0	12.814	34.891	26.368
50.0	15.240	35.147	26.052	180.0	12.647	34.882	26.395
60.0	14.939	35.116	26.095	200.0	12.317	34.865	26.447
70.0	14.591	35.082	26.145	300.0	10.688	34.770	26.678
80.0	14.001	35.021	26.224				

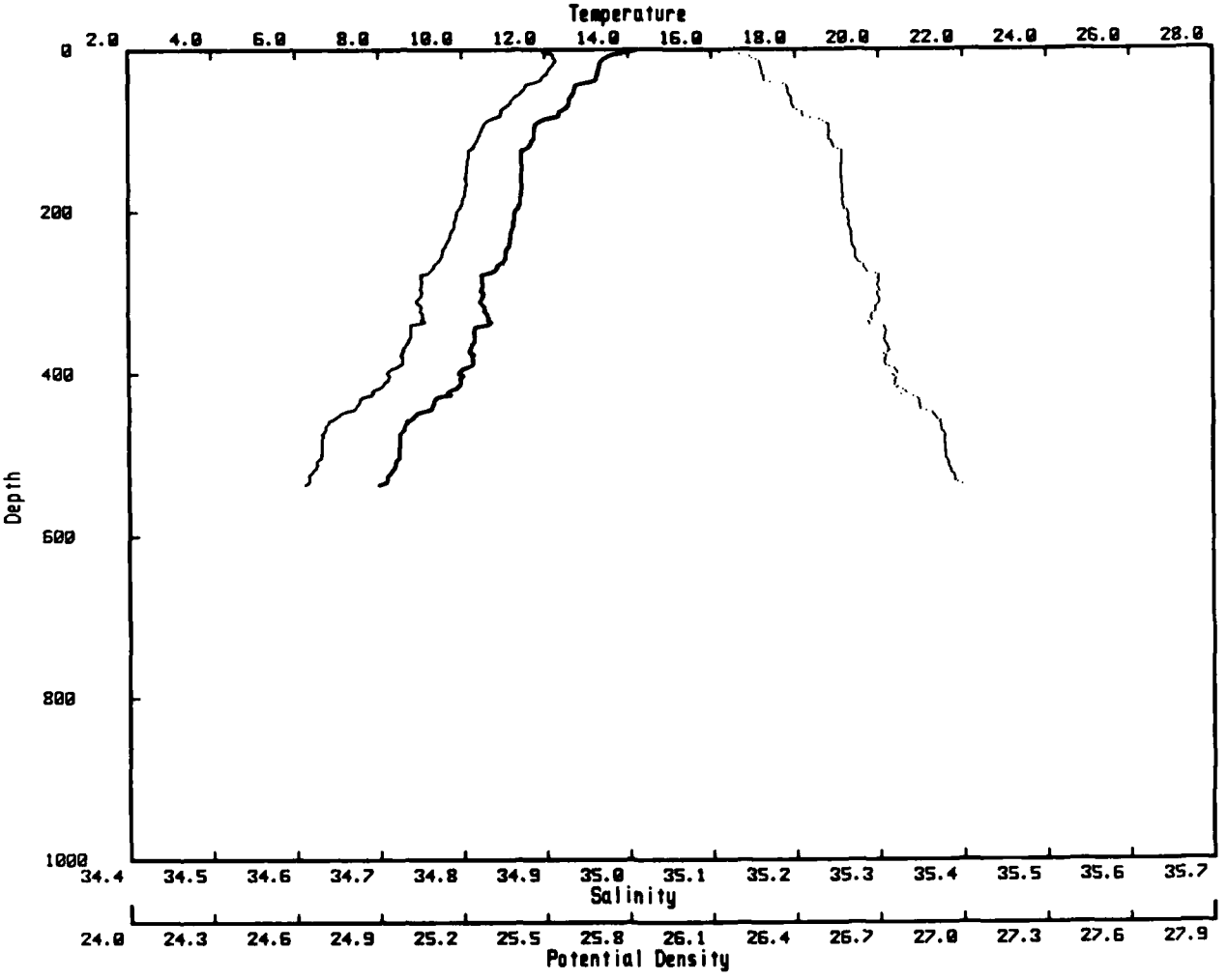
STATION PC7133 : 28 40.4 N 112 45.0 W 22/ 3/85 1924Z 850/ 851m



Day: 81.80 SST: 14.8 Tdry: 16.4 Twet: 14.3 Wspd: .8 CTD #: 3
ES-9
ANC 17 OCT 85 CH:WD,CD,TD,TW (FROM UW LOG). POS:ANC RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	14.181	34.939	26.120	120.0	11.692	34.813	26.524
10.0	13.842	34.935	26.189	140.0	11.091	34.780	26.610
20.0	13.761	34.931	26.203	160.0	10.984	34.776	26.627
30.0	13.623	34.922	26.225	180.0	10.836	34.768	26.648
40.0	13.253	34.909	26.291	200.0	10.807	34.766	26.652
50.0	12.995	34.885	26.325	300.0	10.681	34.757	26.669
60.0	12.619	34.874	26.391	400.0	10.391	34.744	26.712
70.0	12.584	34.868	26.394	500.0	9.862	34.711	26.779
80.0	12.563	34.865	26.396	600.0	9.883	34.709	26.776
90.0	12.516	34.857	26.399	700.0	9.637	34.696	26.809
100.0	12.328	34.840	26.423	800.0	9.084	34.663	26.875

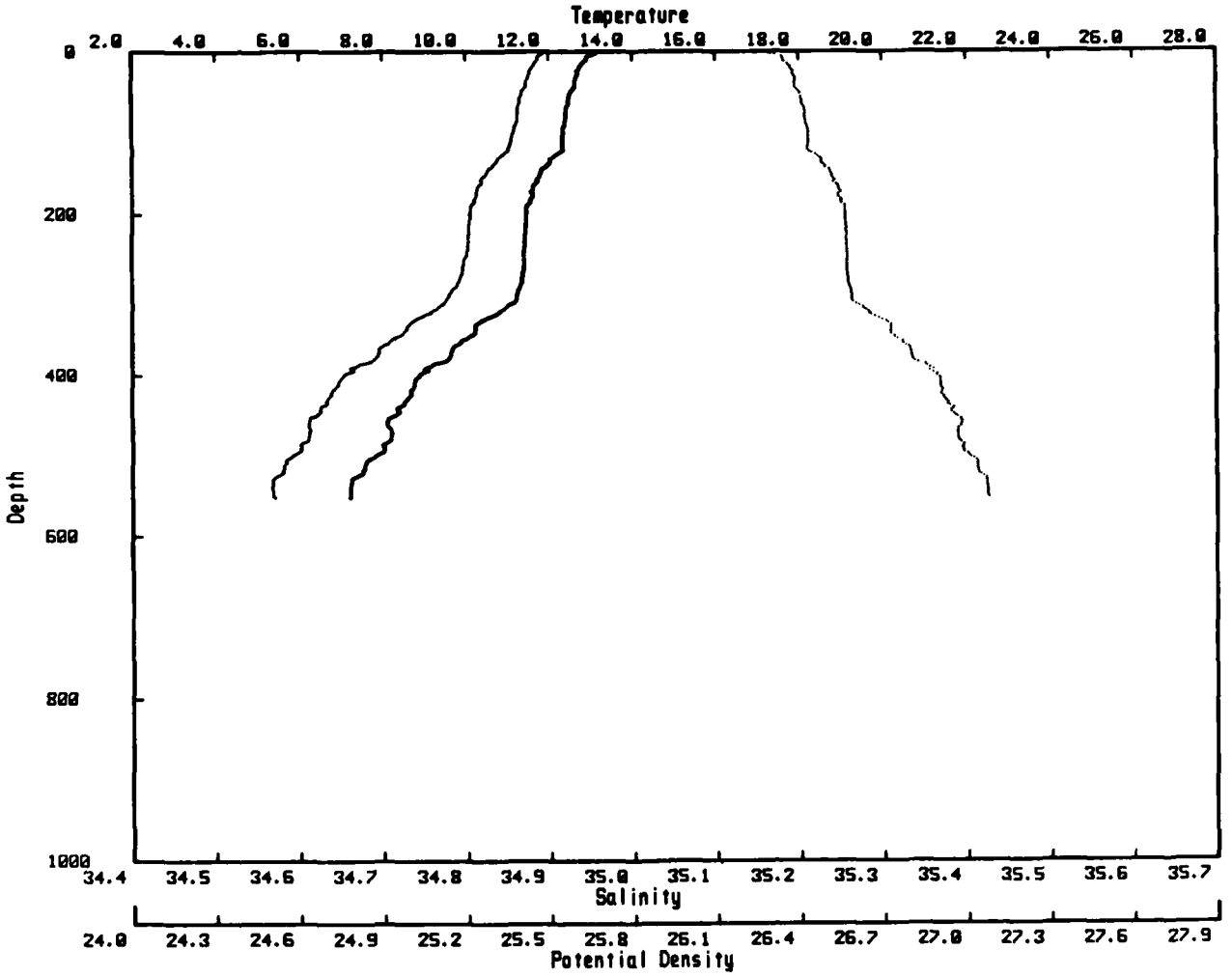
STATION PC7134 : 28 38.0 N 112 41.8 W 22/ 3/85 2052Z 535/ 540m



Day: 81.85 SST: 14.0 Tdry: 15.6 Twet: 14.2 Wspd: 4.7 CTD #: 3
ES-10.JUST SOUTH OF SILL.
ANC 16 OCT 85 CH:WD,CD,D. 24004SESL POS:ANC RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	14.161	34.898	26.093	100.0	11.739	34.823	26.522
10.0	13.470	34.910	26.246	120.0	11.612	34.815	26.541
20.0	13.315	34.909	26.278	140.0	11.440	34.807	26.567
30.0	13.266	34.902	26.282	160.0	11.432	34.805	26.567
40.0	13.088	34.890	26.310	180.0	11.404	34.802	26.571
50.0	12.705	34.874	26.374	200.0	11.276	34.794	26.588
60.0	12.586	34.862	26.388	300.0	10.515	34.752	26.695
70.0	12.525	34.853	26.394	400.0	9.923	34.710	26.766
80.0	12.333	34.847	26.427	500.0	8.485	34.631	26.939
90.0	11.801	34.828	26.514				

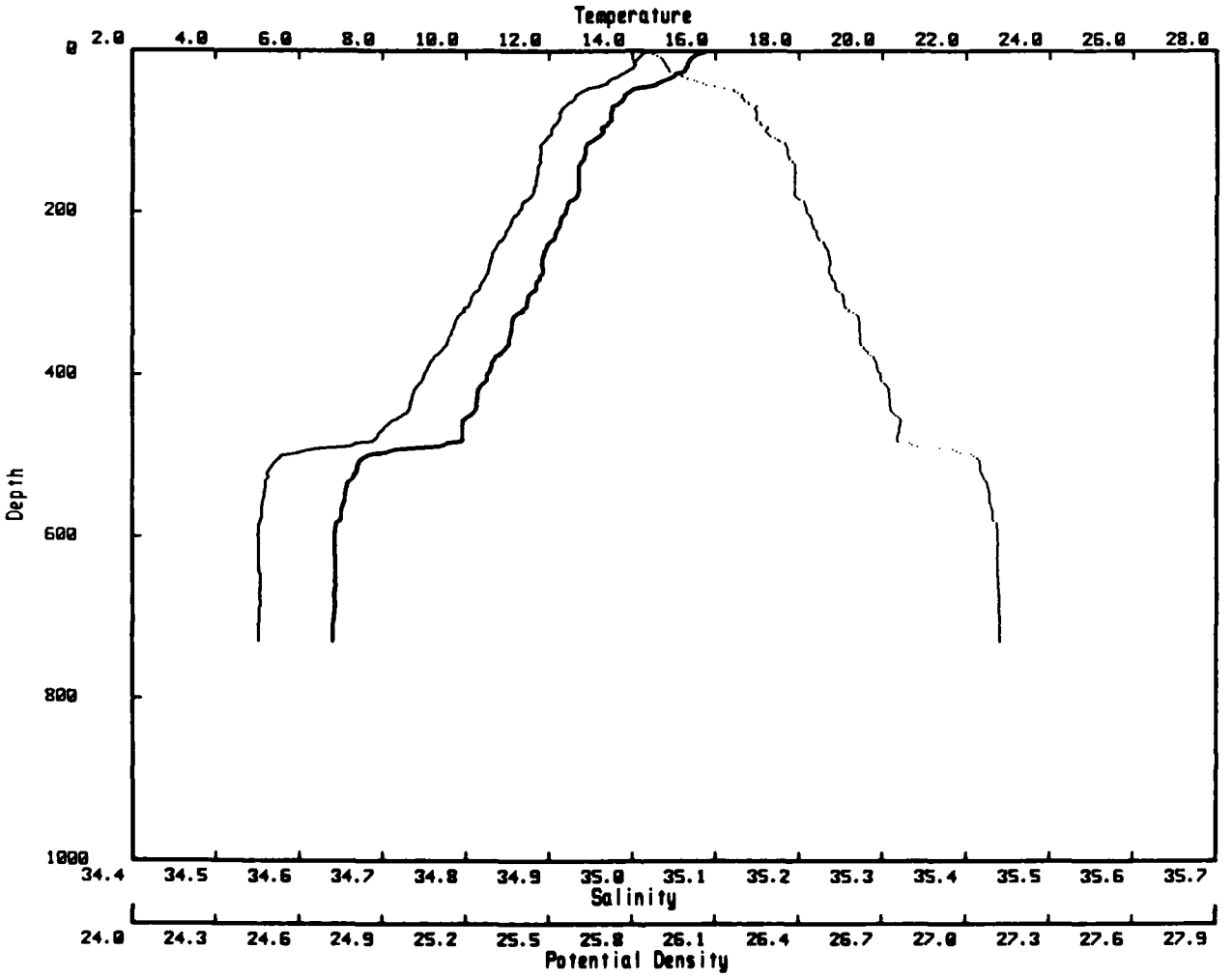
STATION PC7135 : 28 34.9 N 112 38.9 W 22/ 3/85 2237Z 551/ 556m



Day: 81.93 SST: 13.6 Tdry: 16.0 Twet: 14.6 Wspd: 6.3 CTD #: 3
ES-11
ANC 16 OCT 85 CH:WD,CD.28005.8SESL POS:ANC RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	13.138	34.894	26.301	100.0	12.335	34.857	26.435
10.0	12.897	34.886	26.344	120.0	12.327	34.851	26.432
20.0	12.737	34.879	26.371	140.0	11.934	34.832	26.493
30.0	12.656	34.875	26.384	160.0	11.726	34.819	26.523
40.0	12.628	34.873	26.388	180.0	11.544	34.810	26.551
50.0	12.527	34.868	26.404	200.0	11.441	34.804	26.566
60.0	12.468	34.865	26.414	300.0	11.213	34.779	26.591
70.0	12.417	34.863	26.423	400.0	8.882	34.653	26.892
80.0	12.409	34.862	26.424	500.0	7.823	34.591	27.007
90.0	12.381	34.861	26.429				

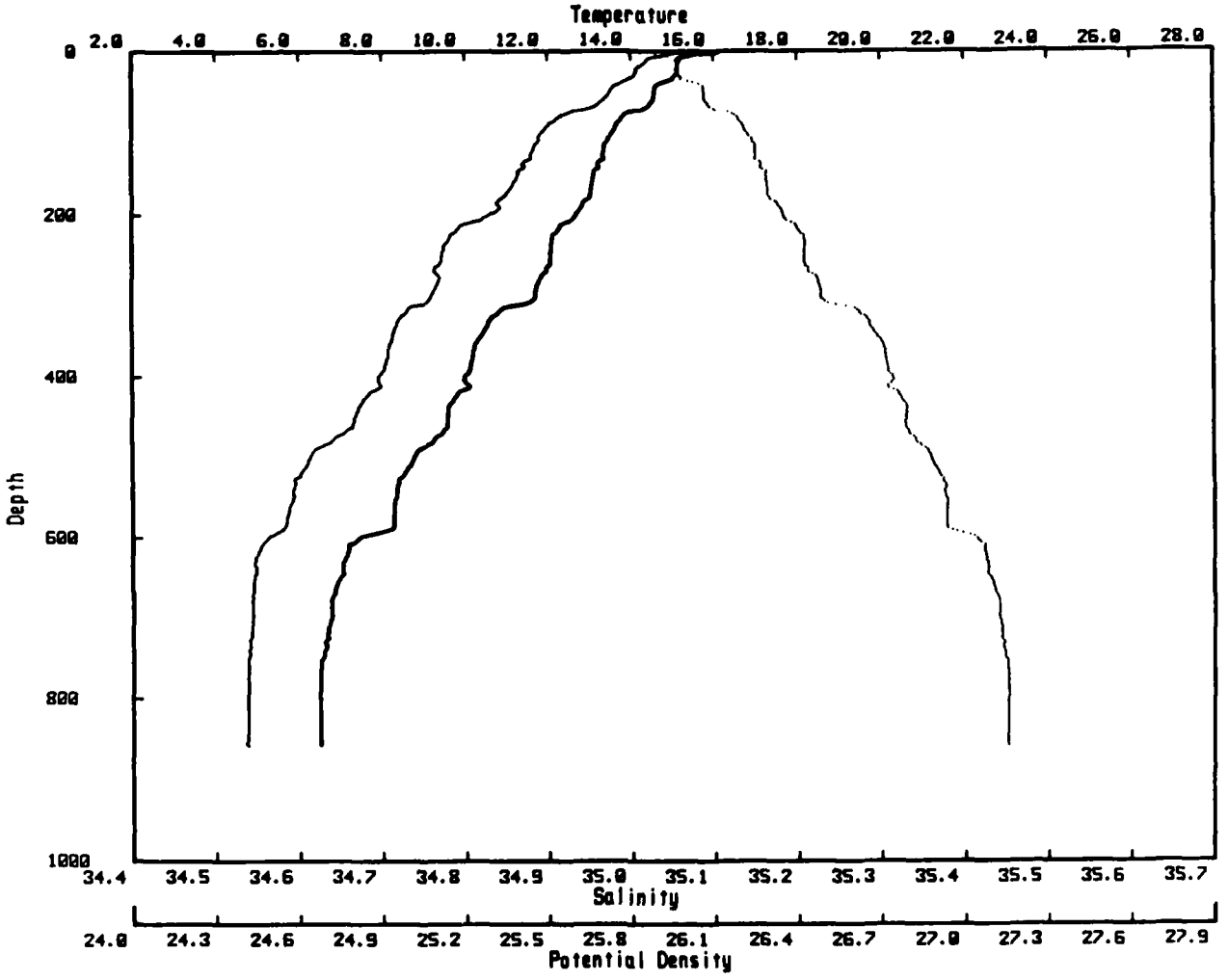
STATION PC7136 : 28 30.1 N 112 34.9 W 22/ 3/85 2347Z 729/ 734m



Day: 81.98 SST: 15.4 Tdry: 16.2 Twet: 14.6 Wspd: 9.0 CTD #: 3
ES-12
ANC 16 OCT 85 CH:D,WD,CD. 301010.7 SESL POS:ANC RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	15.717	35.014	25.841	120.0	12.862	34.890	26.357
10.0	15.385	35.006	25.910	140.0	12.728	34.888	26.383
20.0	15.294	35.001	25.927	160.0	12.704	34.884	26.385
30.0	15.010	34.984	25.977	180.0	12.657	34.878	26.390
40.0	14.603	34.970	26.055	200.0	12.402	34.864	26.430
50.0	13.964	34.938	26.167	300.0	11.531	34.809	26.555
60.0	13.764	34.930	26.202	400.0	10.512	34.750	26.696
70.0	13.514	34.916	26.244	500.0	7.617	34.577	27.026
80.0	13.491	34.913	26.246	600.0	6.851	34.551	27.114
90.0	13.401	34.908	26.261	700.0	6.824	34.552	27.120
100.0	13.289	34.903	26.281				

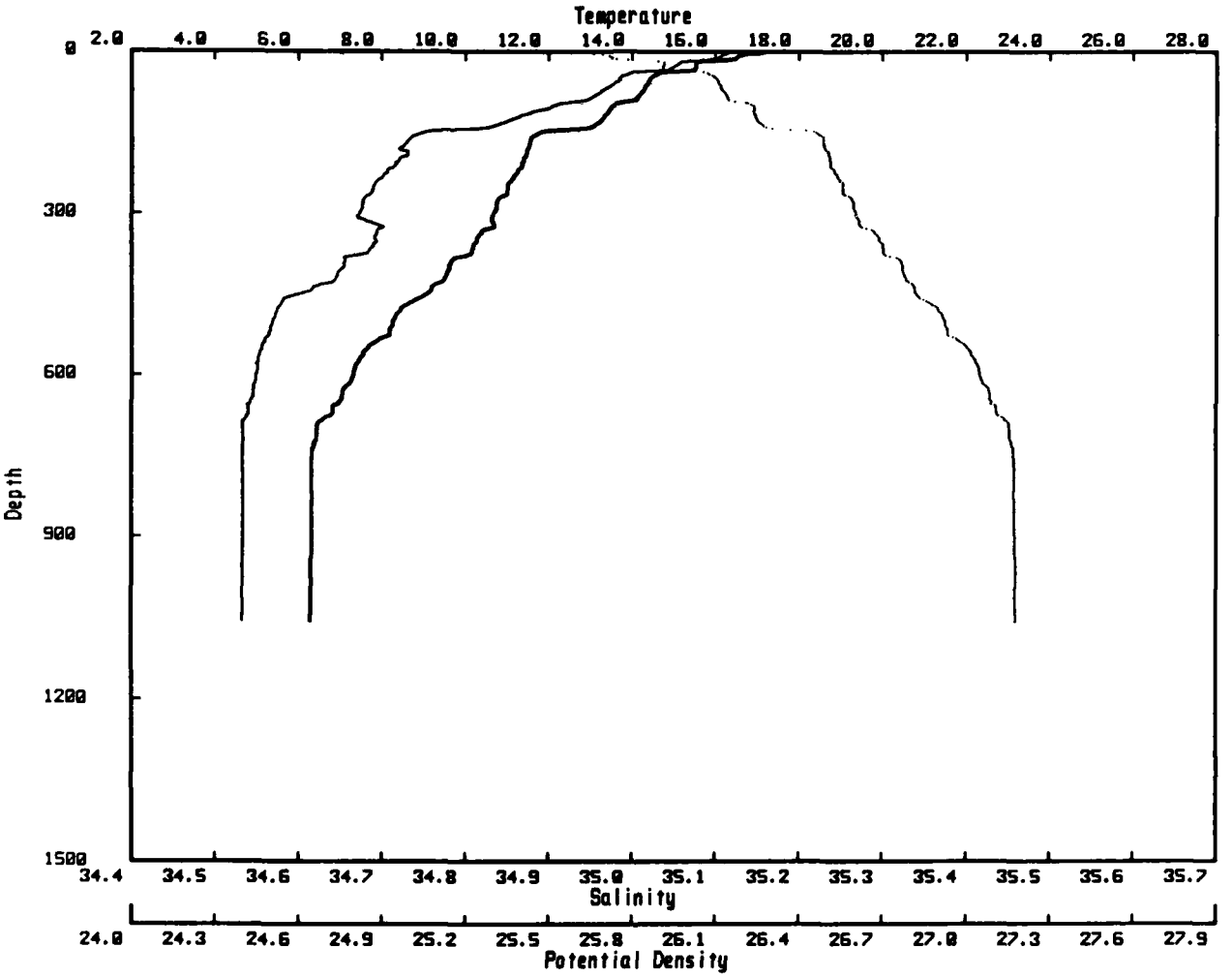
STATION PC7137 : 28 24.0 N 112 29.4 W 22/ 3/85 115Z 858/ 863m



Day: 82.05 SST: 16.1 Tdry: 17.3 Twet: 15.4 Wspd: 5.6 CTD #: 3
ES-13.
ANC 1 NOV 85 CH:WD,CD. POS:ANC RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.115	35.070	25.793	120.0	13.360	34.883	26.251
10.0	15.106	35.019	25.982	140.0	13.228	34.873	26.271
20.0	15.114	35.008	25.972	160.0	13.071	34.859	26.292
30.0	15.073	35.005	25.979	180.0	12.950	34.841	26.303
40.0	14.697	34.988	26.048	200.0	12.664	34.828	26.350
50.0	14.574	34.975	26.065	300.0	11.696	34.759	26.486
60.0	14.535	34.967	26.068	400.0	9.983	34.695	26.744
70.0	14.324	34.950	26.100	500.0	8.763	34.613	26.882
80.0	13.800	34.915	26.184	600.0	7.421	34.562	27.044
90.0	13.658	34.902	26.204	700.0	6.755	34.543	27.122
100.0	13.544	34.892	26.220	800.0	6.488	34.538	27.155

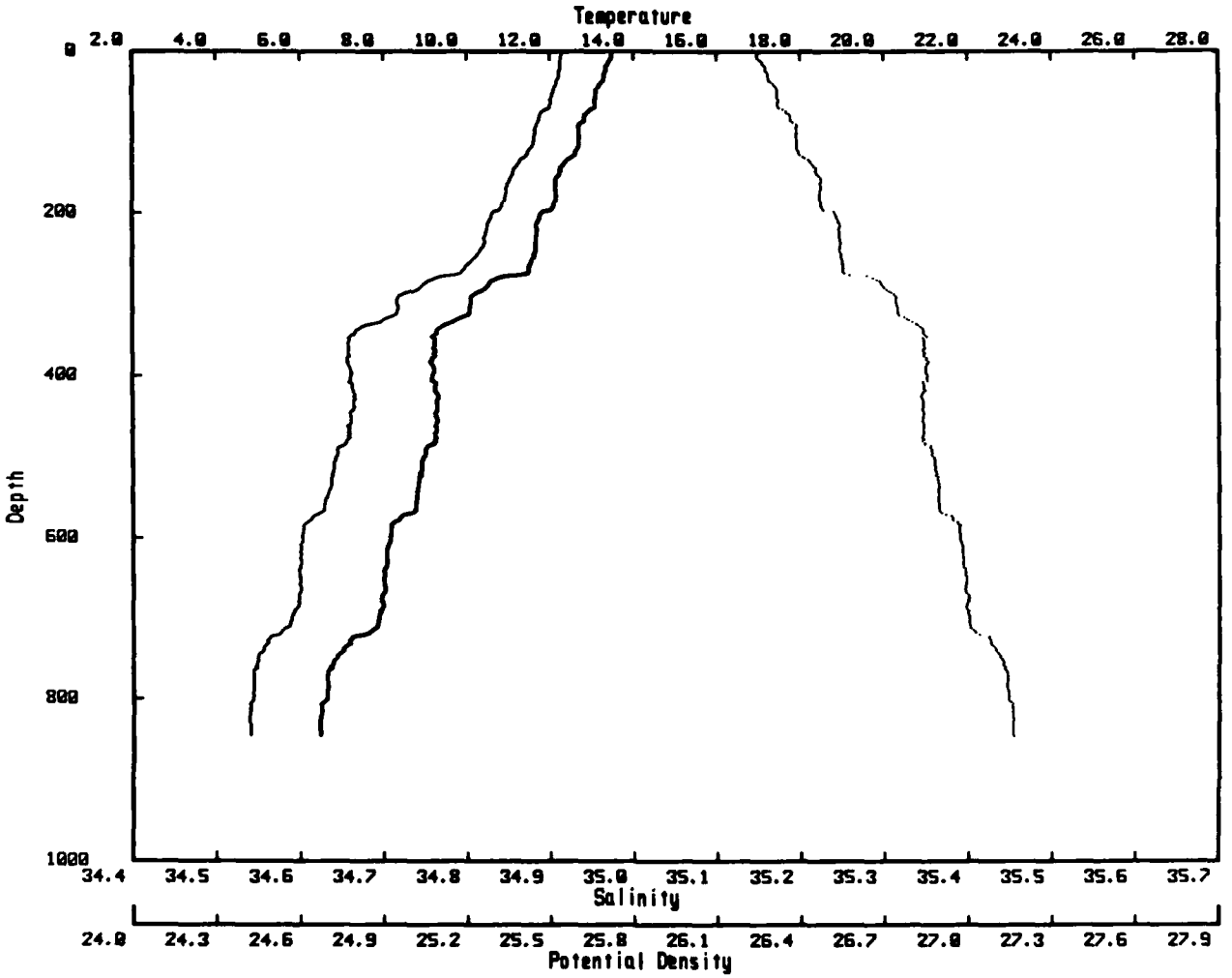
STATION PC7138 : 28 16.1 N 112 28.9 W 22/ 3/85 306Z 1058/1063m



Day: 82.13 SST: 17.5 Tdry: 16.8 Twet: 15.5 Wspd: 10.6 CTD #: 3
ESP-1.SAN PEDRO DEEP.RADAR ON CTD LOG SHEET.
ANC 16 OCT 85 CH:WD,CD. POS:SAIL

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	17.184	35.116	25.578	140.0	12.994	34.827	26.283
10.0	16.521	35.105	25.726	160.0	11.566	34.734	26.487
20.0	15.534	35.057	25.916	180.0	11.472	34.720	26.494
30.0	15.523	35.047	25.911	200.0	11.384	34.720	26.511
40.0	14.631	34.998	26.070	300.0	10.673	34.672	26.605
50.0	14.424	34.984	26.104	400.0	9.623	34.654	26.773
60.0	14.361	34.977	26.113	500.0	8.258	34.569	26.925
70.0	14.279	34.966	26.122	600.0	7.307	34.549	27.050
80.0	14.170	34.956	26.138	700.0	6.449	34.534	27.156
90.0	14.080	34.944	26.148	800.0	6.324	34.534	27.174
100.0	13.509	34.905	26.237	900.0	6.319	34.534	27.176
120.0	13.331	34.865	26.243	1000.0	6.304	34.533	27.178

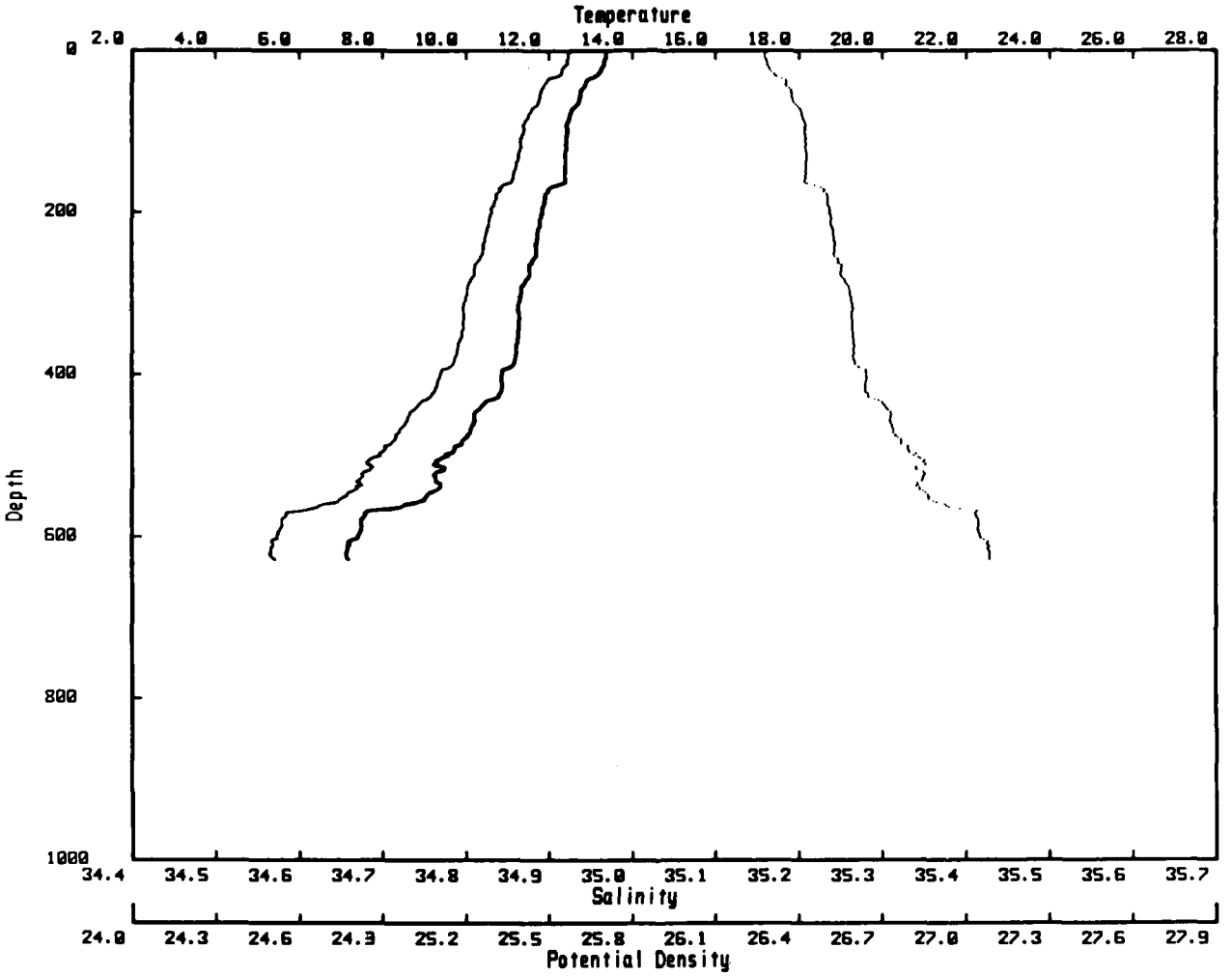
STATION PC7139 : 28 28.3 N 112 32.7 W 22/ 3/85 548Z 845/ 850m



Day: 82.23 SST: 13.8 Tdry: 15.3 Twet: 14.3 Wspd: 10.0 CTD #: 3
ESP-2.WIND IS 9.991
ANC 17 OCT 85 CH:WD,CD. POS:SAIL

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	13.484	34.914	26.246	120.0	12.657	34.877	26.388
10.0	13.445	34.913	26.254	140.0	12.306	34.860	26.444
20.0	13.341	34.912	26.275	160.0	12.116	34.851	26.474
30.0	13.292	34.911	26.284	180.0	12.124	34.845	26.468
40.0	13.190	34.907	26.302	200.0	11.771	34.830	26.524
50.0	13.104	34.904	26.317	300.0	10.157	34.723	26.734
60.0	13.061	34.900	26.323	400.0	9.162	34.661	26.854
70.0	13.052	34.899	26.325	500.0	8.931	34.642	26.878
80.0	12.814	34.887	26.363	600.0	8.145	34.602	26.969
90.0	12.686	34.883	26.386	700.0	7.859	34.589	27.003
100.0	12.681	34.882	26.386	800.0	6.617	34.543	27.142

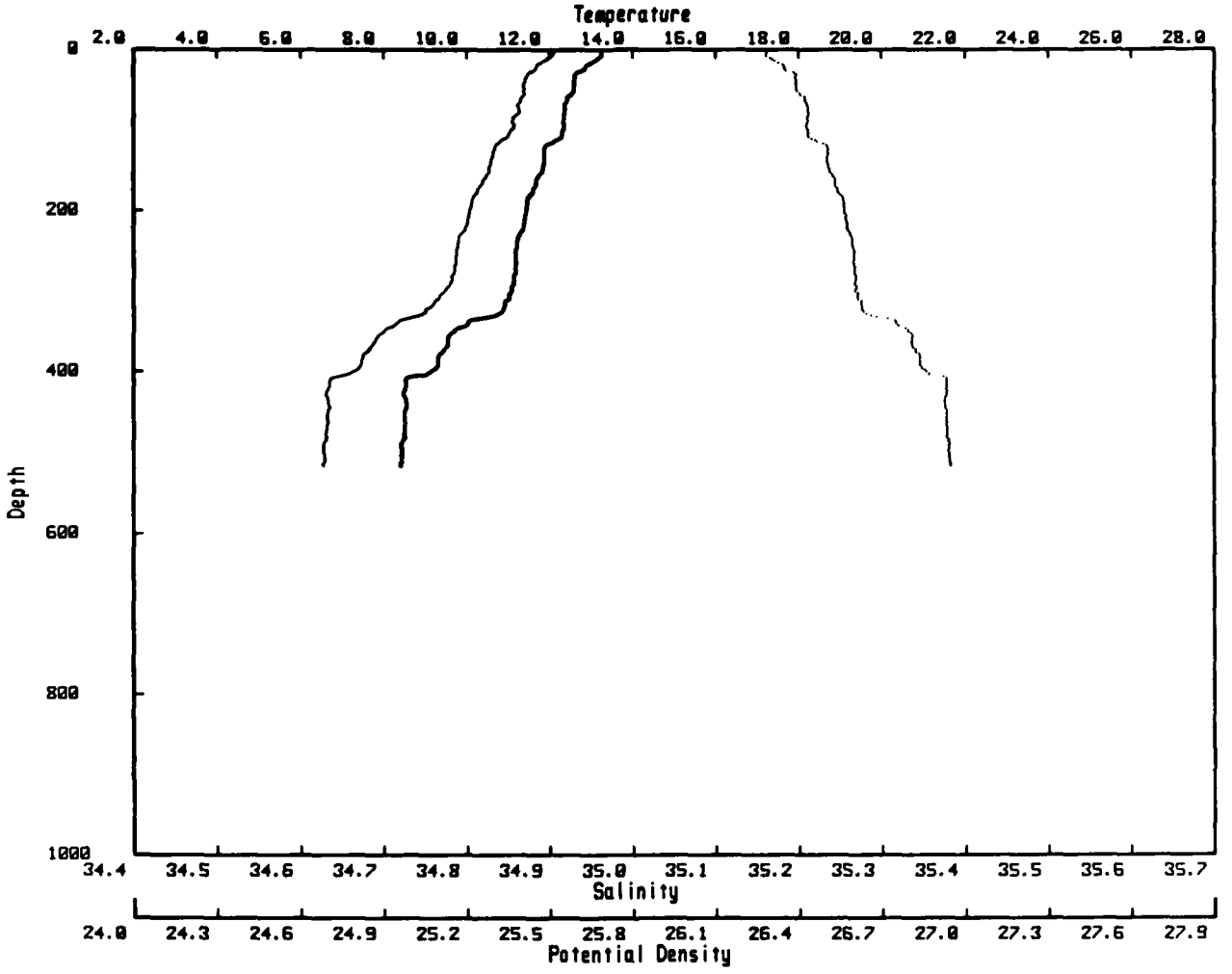
STATION PC7140 : 28 34.7 N 112 39.5 W 23/ 3/85 725Z 627/ 632m



Day: 82.30 SST: 13.7 Tdry: 15.6 Twet: 14.2 Wspd: 12.0 CTD #: 3
ESP-3
ANC 23 OCT 85 CH:WD,CD,T. POS:CINDY RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	13.367	34.925	26.279	100.0	12.449	34.870	26.423
10.0	13.340	34.922	26.282	120.0	12.428	34.866	26.424
20.0	13.282	34.917	26.291	140.0	12.396	34.861	26.427
30.0	13.154	34.913	26.314	160.0	12.400	34.856	26.423
40.0	12.890	34.896	26.354	180.0	11.902	34.837	26.504
50.0	12.772	34.891	26.374	200.0	11.841	34.831	26.512
60.0	12.734	34.888	26.379	300.0	11.336	34.802	26.586
70.0	12.587	34.880	26.402	400.0	10.886	34.770	26.645
80.0	12.508	34.875	26.414	500.0	9.587	34.698	26.815
90.0	12.432	34.870	26.426	600.0	7.418	34.574	27.054

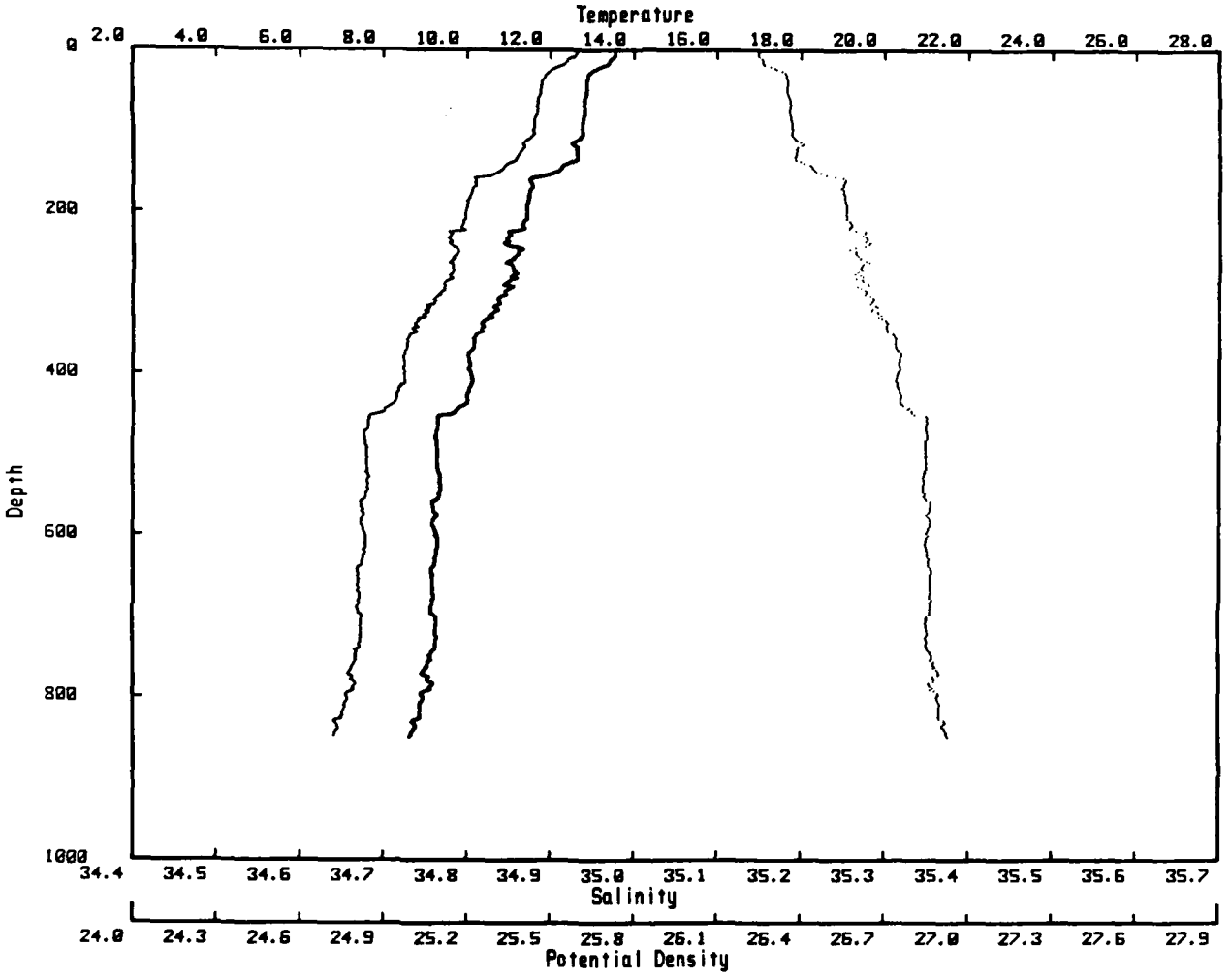
STATION PC7141 : 28 38.1 N 112 42.0 W 23/ 3/85 827Z 515/ 580m



Day: 82.34 SST: 13.4 Tdry: 15.5 Twet: 14.2 Wspd: 12.8 CTD #: 3
ESP-4
ANC 1 NOV 85 CH:CD,T. POS:ANC RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	13.259	34.906	26.286	100.0	12.321	34.853	26.434
10.0	13.164	34.897	26.299	120.0	11.880	34.834	26.505
20.0	12.880	34.885	26.347	140.0	11.866	34.829	26.504
30.0	12.618	34.874	26.391	160.0	11.686	34.821	26.532
40.0	12.594	34.870	26.393	180.0	11.532	34.810	26.553
50.0	12.591	34.869	26.393	200.0	11.441	34.804	26.566
60.0	12.430	34.865	26.421	300.0	11.101	34.774	26.607
70.0	12.362	34.862	26.433	400.0	9.120	34.663	26.862
80.0	12.345	34.860	26.435	500.0	8.437	34.629	26.945
90.0	12.333	34.856	26.434				

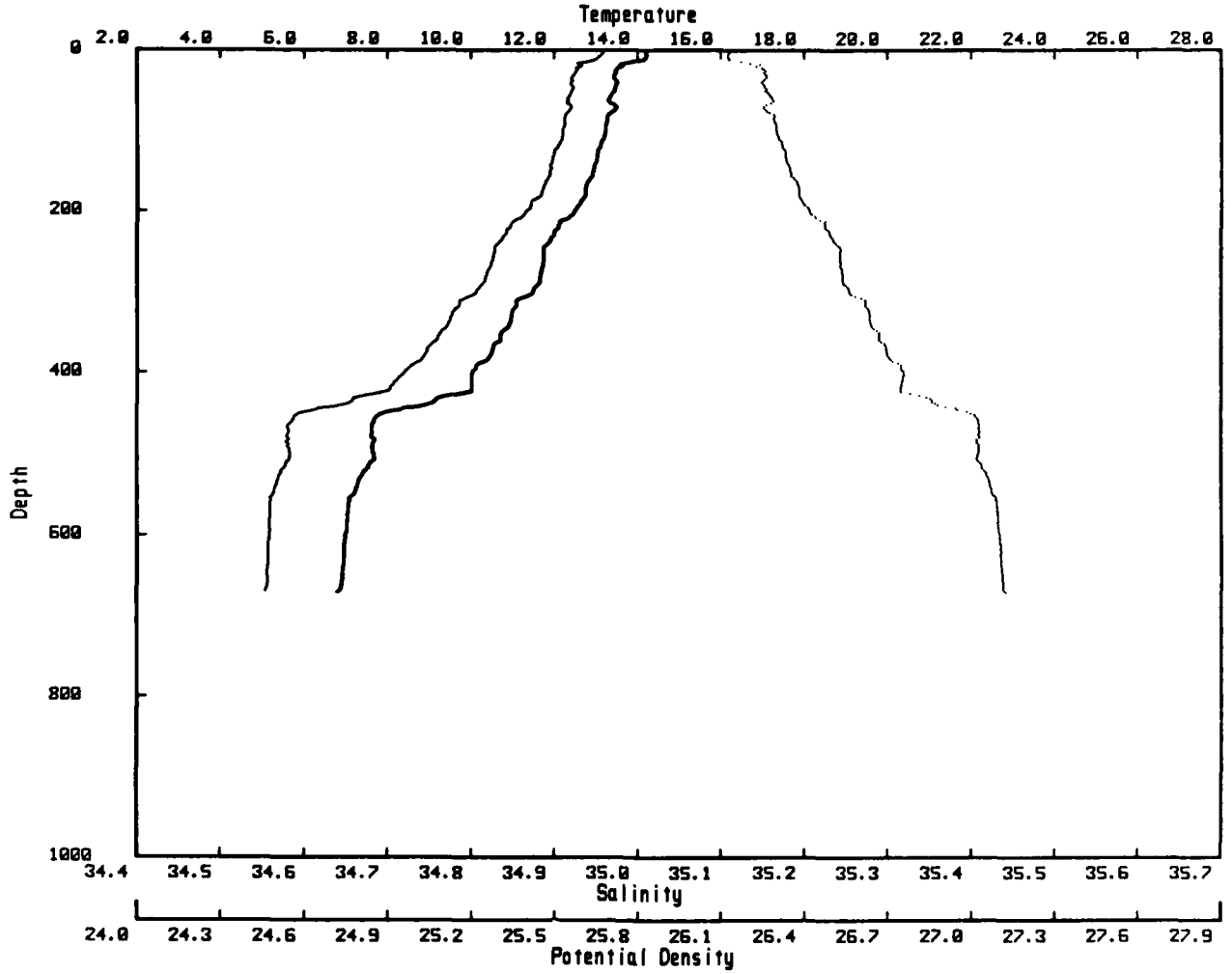
STATION PC7142 : 28 40.6 N 112 43.1 W 23/ 3/85 921Z 851/ 856m



Day: 82.38 SST: 13.7 Tdry: 15.1 Twet: 14.4 Wspd: 7.8 CTD #: 3
ESP-5
ANC 17 OCT 85 CH:WD,CD. POS:ANC RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	13.539	34.932	26.249	120.0	12.628	34.869	26.387
10.0	13.449	34.923	26.261	140.0	12.441	34.849	26.409
20.0	13.253	34.911	26.292	160.0	11.496	34.810	26.559
30.0	12.915	34.895	26.348	180.0	11.477	34.803	26.558
40.0	12.873	34.890	26.353	200.0	11.434	34.798	26.562
50.0	12.872	34.888	26.352	300.0	10.919	34.768	26.635
60.0	12.816	34.885	26.361	400.0	10.091	34.724	26.748
70.0	12.816	34.885	26.361	500.0	9.292	34.680	26.849
80.0	12.808	34.883	26.361	600.0	9.245	34.678	26.857
90.0	12.764	34.880	26.368	700.0	9.263	34.675	26.854
100.0	12.758	34.879	26.369	800.0	8.959	34.657	26.890

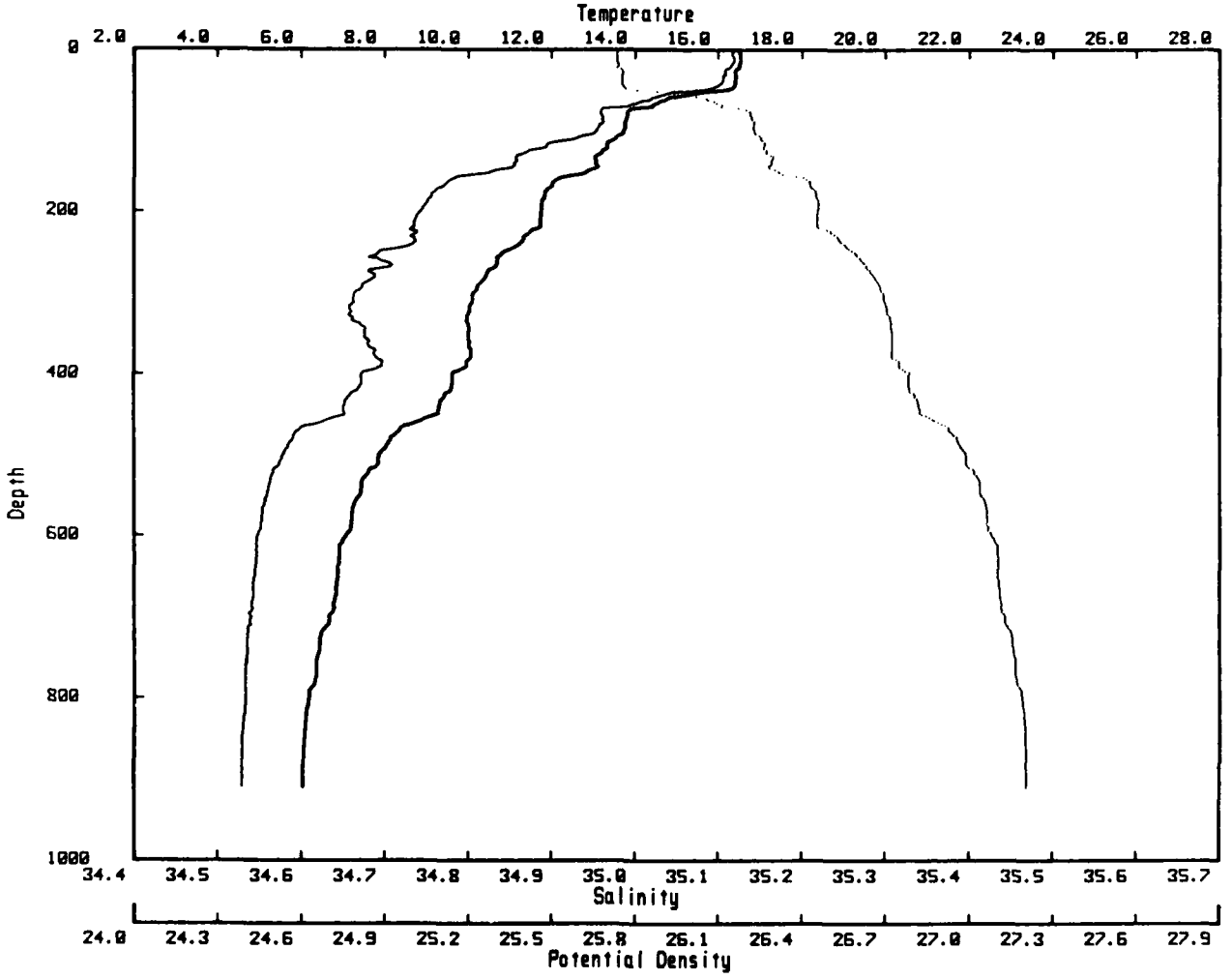
STATION PC7143 : 28 29.1 N 112 38.0 W 23/ 3/85 1123Z 669/ 674m



Day: 82.47 SST: 13.9 Tdry: 14.8 Twet: 14.1 Wspd: 13.9 CTD #: 3
ESP-6 = ES12
ANC 17 OCT 85 CH:WD,CD. 300010.6 SESL POS:ANC RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	14.190	34.959	26.134	100.0	13.223	34.910	26.299
10.0	14.183	34.952	26.130	120.0	13.092	34.904	26.322
20.0	13.649	34.933	26.227	140.0	12.978	34.896	26.339
30.0	13.447	34.924	26.262	160.0	12.833	34.891	26.365
40.0	13.512	34.920	26.246	180.0	12.734	34.884	26.379
50.0	13.451	34.921	26.260	200.0	12.466	34.865	26.418
60.0	13.314	34.915	26.284	300.0	11.481	34.806	26.562
70.0	13.480	34.920	26.254	400.0	10.019	34.719	26.757
80.0	13.277	34.913	26.290	500.0	7.661	34.583	27.024
90.0	13.250	34.912	26.295	600.0	6.978	34.558	27.103

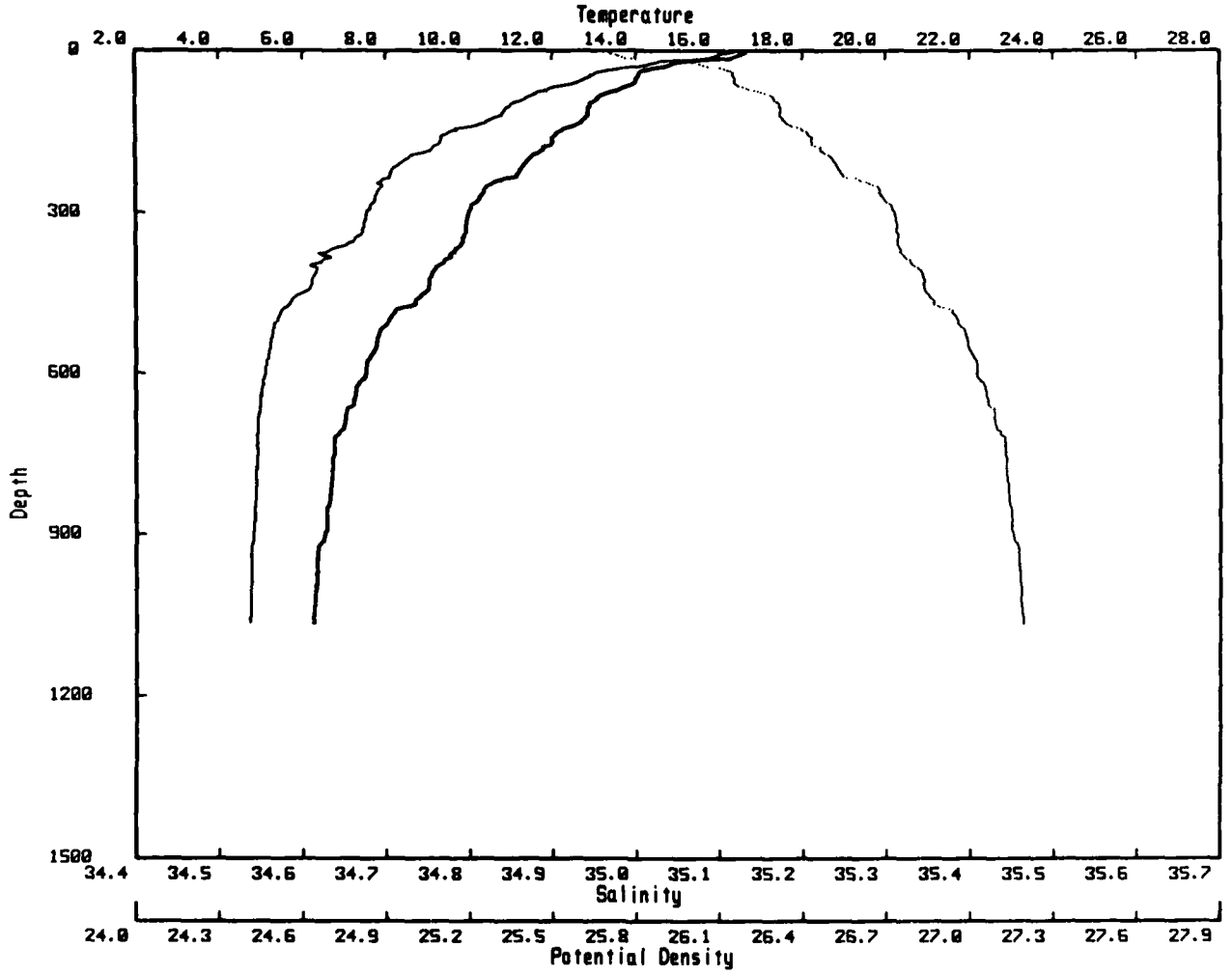
STATION PC7144 : 28 17.1 N 112 23.0 W 23/ 3/85 654Z 909/ 914m



Day: 83.27 SST: 16.7 Tdry: 16.8 Twet: 15.0 Wspd: 23.2 CTD #: 3
ES-14. *** uptrace ***
ANC 17 OCT 85 CH:WD,CD. 2004.9 SPM POS:ANC RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.511	35.118	25.738	140.0	13.051	34.854	26.292
10.0	16.526	35.119	25.736	160.0	12.135	34.780	26.415
20.0	16.501	35.116	25.740	180.0	11.839	34.756	26.454
30.0	16.415	35.109	25.755	200.0	11.758	34.743	26.459
40.0	16.403	35.104	25.754	300.0	10.123	34.664	26.694
50.0	16.058	35.068	25.807	400.0	9.626	34.672	26.786
60.0	14.773	35.019	26.056	500.0	7.871	34.578	26.990
70.0	14.421	34.990	26.110	600.0	7.077	34.548	27.081
80.0	13.811	34.959	26.216	700.0	6.667	34.540	27.132
90.0	13.757	34.961	26.229	800.0	6.175	34.533	27.192
100.0	13.720	34.953	26.231	900.0	6.049	34.529	27.206
120.0	13.344	34.893	26.262				

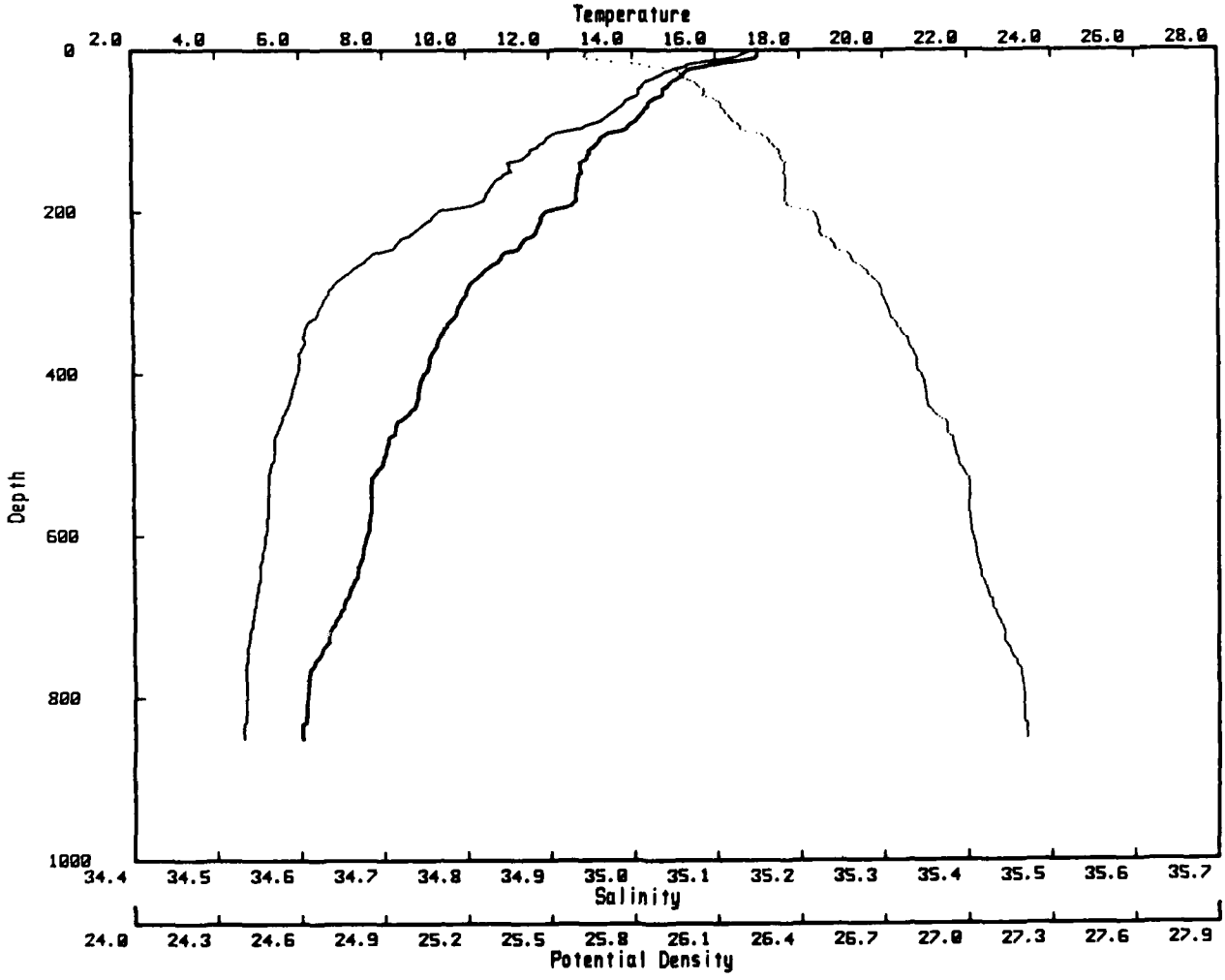
STATION PC7145 : 28 18.0 N 112 29.0 W 24/ 3/85 845Z 1079/1084m



Day: 83.35 SST: 16.8 Tdry: 17.4 Twet: 14.0 Wspd: 15.8 CTD #: 3
ESP1,SAN PEDRO PITS AGAIN.WILL WE SEE DEEP MIXT LAYER?
ANC 17 OCT 85 CH:WD,CD. 5709.4 SPM POS:ANC RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	16.629	35.119	25.711	140.0	12.503	34.805	26.363
10.0	16.445	35.097	25.738	160.0	11.981	34.765	26.433
20.0	15.124	35.030	25.987	180.0	11.779	34.756	26.465
30.0	14.693	35.003	26.060	200.0	11.422	34.726	26.509
40.0	14.093	34.954	26.151	300.0	9.969	34.676	26.730
50.0	14.038	34.944	26.156	400.0	9.183	34.612	26.812
60.0	13.974	34.928	26.157	500.0	8.060	34.570	26.955
70.0	13.655	34.896	26.199	600.0	7.513	34.555	27.025
80.0	13.274	34.880	26.265	700.0	6.967	34.546	27.096
90.0	13.065	34.866	26.297	800.0	6.683	34.544	27.134
100.0	12.902	34.850	26.318	900.0	6.514	34.540	27.155
120.0	12.854	34.839	26.319	1000.0	6.299	34.537	27.182

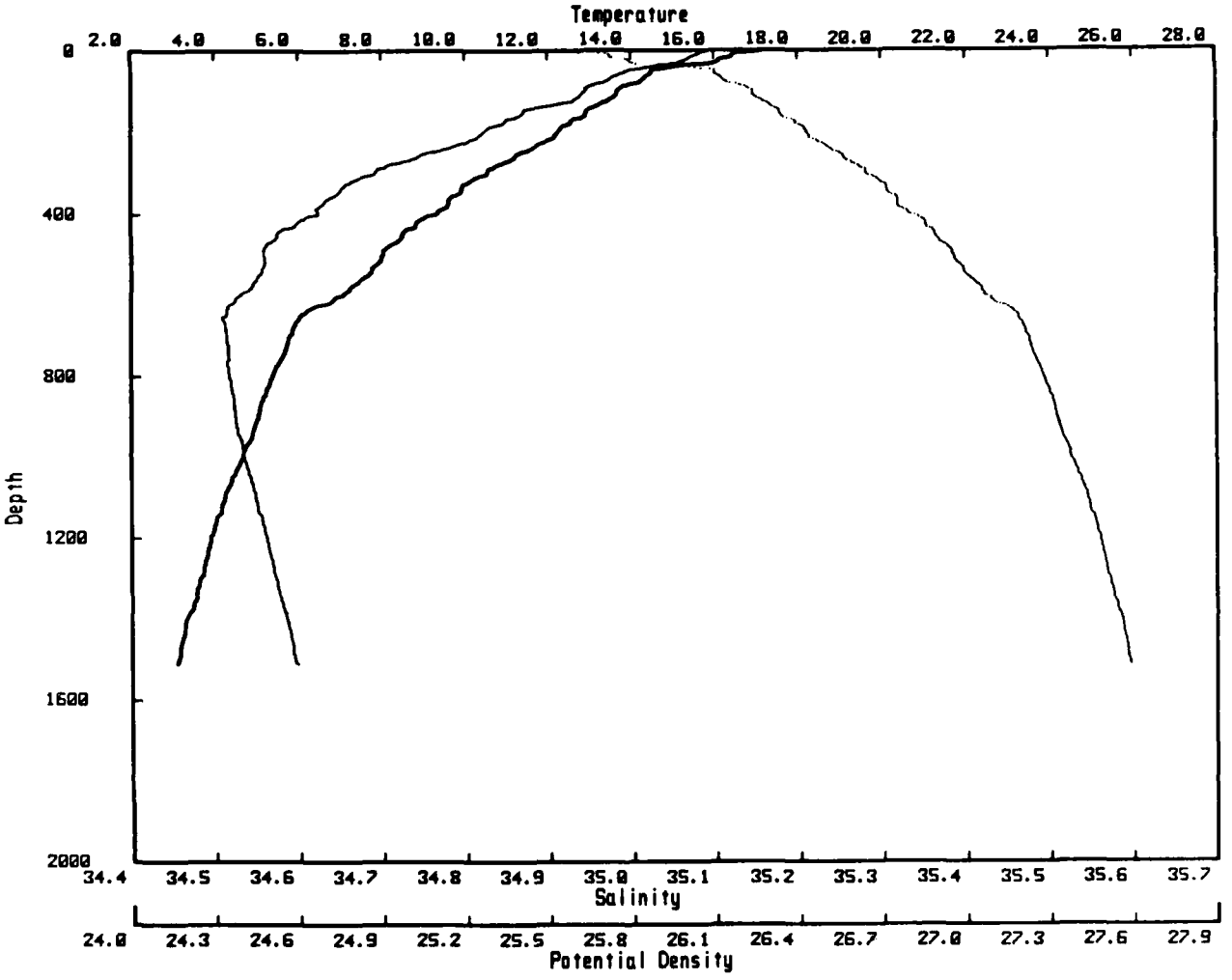
STATION PC7146 : 28 11.5 N 112 16.9 W 24/ 3/85 1108Z 850/ 855m



Day: 83.46 SST: 16.7 Tdry: 17.2 Twet: 14.7 Wspd: 7.6 CTD #: 3
ES-15
ANC 17 OCT 85 340010.4 SPM POS:ANC RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	17.007	35.140	25.638	120.0	13.074	34.886	26.311
10.0	16.927	35.116	25.639	140.0	12.746	34.850	26.350
20.0	15.800	35.066	25.863	160.0	12.696	34.838	26.351
30.0	15.210	35.035	25.972	180.0	12.651	34.824	26.349
40.0	14.904	35.015	26.024	200.0	11.901	34.766	26.450
50.0	14.725	35.007	26.057	300.0	9.989	34.634	26.694
60.0	14.525	34.997	26.093	400.0	8.968	34.597	26.835
70.0	14.363	34.986	26.120	500.0	8.028	34.568	26.959
80.0	14.186	34.972	26.147	600.0	7.574	34.557	27.018
90.0	13.982	34.955	26.177	700.0	6.872	34.542	27.106
100.0	13.717	34.924	26.209	800.0	6.134	34.534	27.198

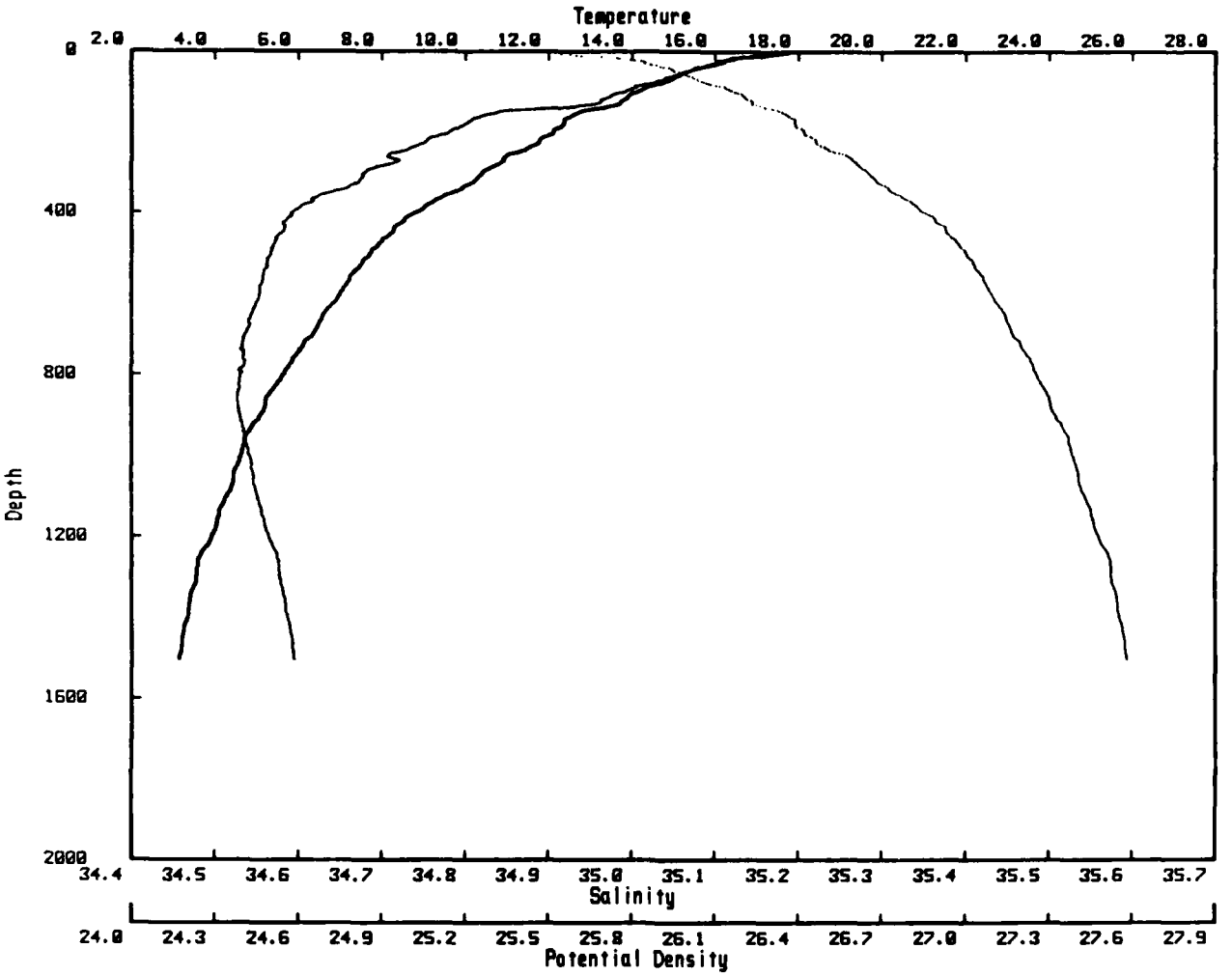
STATION PC7147 : 27 25.0 N 111 45.6 W 25/ 3/85 856Z 1512/1517m



Day: 84.36 SST: 17.8 Tdry: 19.4 Twet: 15.9 Wspd: 2.3 CTD #: 3
B-4
ANC 30 OCT 85 CH:WD,CD. POS:ANC RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	17.149	35.093	25.568	200.0	12.214	34.822	26.434
10.0	16.465	35.081	25.721	300.0	10.515	34.691	26.647
20.0	16.167	35.069	25.781	400.0	9.272	34.623	26.806
30.0	16.023	35.057	25.805	500.0	7.990	34.558	26.956
40.0	14.998	35.023	26.010	600.0	7.053	34.530	27.070
50.0	14.483	34.995	26.100	700.0	5.793	34.515	27.225
60.0	14.399	34.984	26.110	800.0	5.370	34.517	27.279
70.0	14.284	34.975	26.128	900.0	5.036	34.525	27.325
80.0	14.122	34.965	26.155	1000.0	4.656	34.535	27.376
90.0	13.762	34.947	26.217	1100.0	4.228	34.548	27.434
100.0	13.653	34.943	26.237	1200.0	3.893	34.562	27.480
120.0	13.458	34.931	26.268	1300.0	3.636	34.573	27.515
140.0	13.031	34.881	26.317	1400.0	3.305	34.586	27.558
160.0	12.867	34.865	26.338	1500.0	3.118	34.595	27.583
180.0	12.465	34.842	26.400				

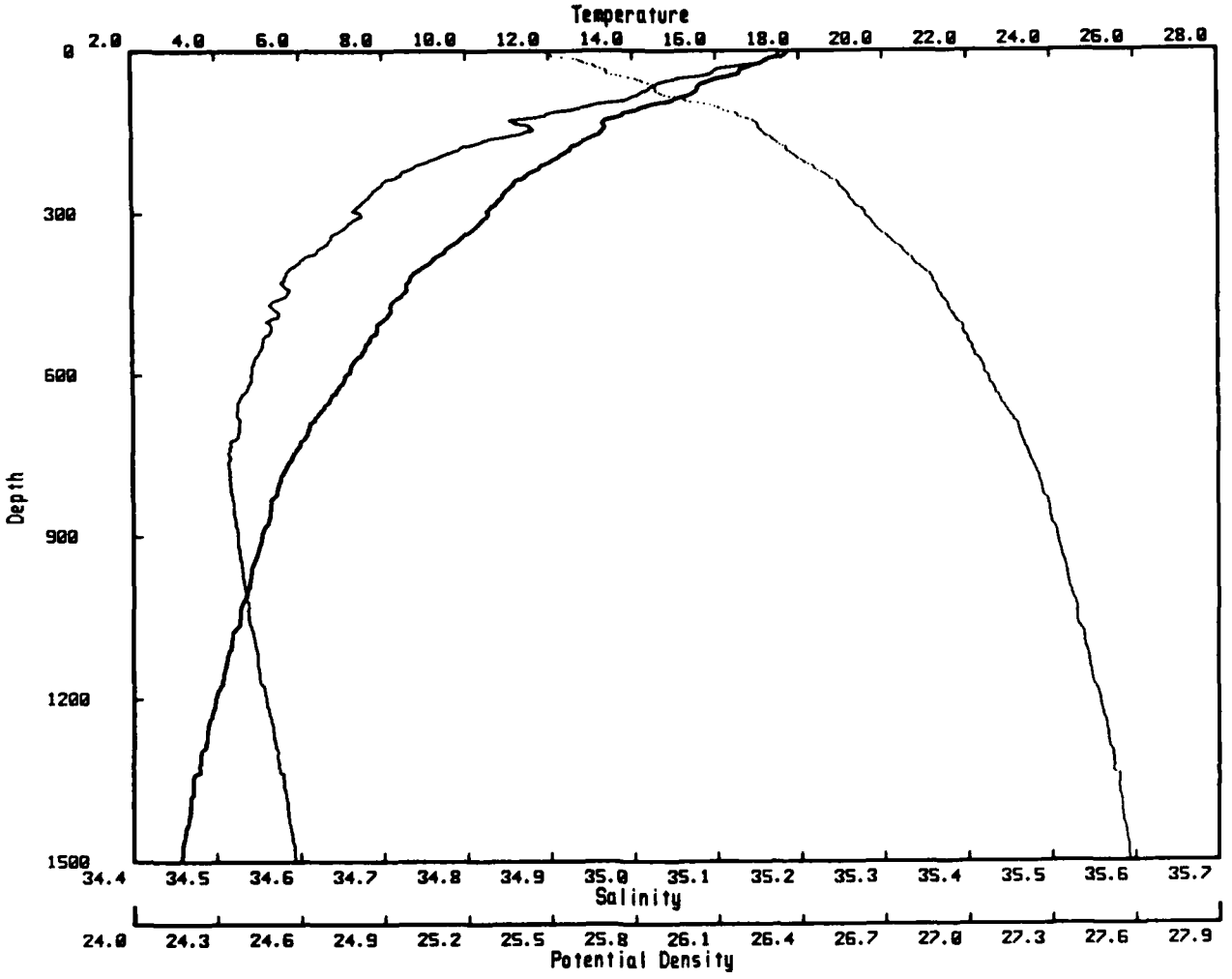
STATION PC7148 : 27 32.0 N 111 36.2 W 25/ 3/85 1109Z 1532/1840m



Day: 84.46 SST: 18.2 Tdry: 18.1 Twet: 17.1 Wspd: 5.2 CTD #: 3
B-5 *** uptrace ***
ANC 17 OCT 85 WD-DUBIOUS 249015 SE TORTUGA POS:ANC RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	17.796	35.173	25.473	200.0	12.118	34.781	26.420
10.0	17.188	35.144	25.598	300.0	10.425	34.680	26.654
20.0	16.293	35.123	25.793	400.0	8.803	34.593	26.858
30.0	15.999	35.106	25.848	500.0	7.720	34.567	27.003
40.0	15.629	35.085	25.917	600.0	7.008	34.554	27.095
50.0	15.390	35.064	25.955	700.0	6.353	34.536	27.170
60.0	15.143	35.051	26.000	800.0	5.642	34.531	27.257
70.0	14.936	35.040	26.037	900.0	5.088	34.530	27.323
80.0	14.693	35.024	26.078	1000.0	4.626	34.540	27.384
90.0	14.349	35.005	26.138	1100.0	4.294	34.551	27.429
100.0	14.153	34.993	26.171	1200.0	3.927	34.565	27.479
120.0	13.829	34.963	26.216	1300.0	3.563	34.578	27.526
140.0	13.326	34.912	26.281	1400.0	3.353	34.587	27.554
160.0	12.547	34.821	26.367	1500.0	3.145	34.594	27.580
180.0	12.359	34.800	26.388				

STATION PC7149 : 27 36.9 N 111 28.2 W 25/ 3/85 1319Z 1500/1505m



Day: 84.55 SST: 18.0 Tdry: 18.1 Twet: 17.0 Wspd: 7.8 CTD #: 3
B-4.PROBABLY THE LAST OF THE PICHICUCO PROGRAM.MCH&AB-D.
ANC 31 OCT 85 CH:WD,CD. POS:ANC RADAR

PR	TE	SA	SGTH	PR	TE	SA	SGTH
2.0	17.741	35.179	25.491	200.0	12.102	34.760	26.407
10.0	17.641	35.174	25.512	300.0	10.514	34.673	26.633
20.0	17.146	35.159	25.620	400.0	8.923	34.590	26.836
30.0	16.795	35.116	25.671	500.0	7.941	34.560	26.965
40.0	16.574	35.096	25.708	600.0	7.087	34.541	27.074
50.0	16.125	35.063	25.787	700.0	6.208	34.526	27.181
60.0	15.700	35.031	25.860	800.0	5.504	34.517	27.263
70.0	15.559	35.020	25.884	900.0	5.073	34.525	27.321
80.0	15.415	35.008	25.907	1000.0	4.721	34.533	27.368
90.0	15.003	34.994	25.988	1100.0	4.346	34.546	27.420
100.0	14.426	34.953	26.082	1200.0	3.952	34.558	27.471
120.0	13.744	34.896	26.182	1300.0	3.614	34.572	27.516
140.0	13.335	34.878	26.253	1400.0	3.361	34.584	27.551
160.0	12.985	34.843	26.297	1500.0	3.147	34.594	27.580
180.0	12.505	34.793	26.354				

Appendix : Program listings

```
      $INT2
      $CHAREQU
      C SPECIAL VERSION (MAR85) TO READ STATIONS DURING PC7
      C
      C 1 FEB 85 N.BRAY
      C
      C BASED ON PROGRAM NOV84 TO READ NB DATA FROM RAW
      C DATA STREAM COMING IN TO IBM 9000. BASED ON
      C PERKIN-ELMER PROGRAM CTDMAY.
      C CHECK FRAME SYNCHS, STRIP OFF ZEROS, CONVERT
      C DOUBLE 16-BIT INTEGERS INTO SINGLE 16-BIT
      C INTEGERS, WATCHING OUT FOR SIGN BIT PROBLEMS,
      C OUTPUT SCANS OF INTEGER DATA TO A SECOND DISC
      C FILE, AND SUBSAMPLED FLOATING POINT SCANS TO
      C A PRINTABLE FILE.
      C PROGRAMMER: N.BRAY
      C IBM 900 VERSION: 25 JUL 84
      C
      C ************************************************
            PROGRAM MAR85
      C ************************************************
      C
            IMPLICIT INTEGER*2 (J-N)
            CHARACTER*12 IFILE,OUTFIL,PRIFIL,ERRFIL
            CHARACTER*6 IDSTN
            CHARACTER*80 COMNT,COMNT1,COMNT2
            CHARACTER*1 BEEP
      C
      C DIMENSION
      C
            DIMENSION JSTOR(11),KD(11,11)
      C
      C INTEGER DECLARATIONS
      C
            INTEGER*1 JDAT(24),JGET
            INTEGER*2 CBPB(10),SERINT(6),DTCB(8)
            INTEGER*1 CIRBUF(8192),DTCSTA,ABUF(256)
            INTEGER*4 LEN4,LEN,INLU,OUTLU,ZERO,ONE,IDUM,IOST,IOSTAT
            INTEGER*4 ERRLU,PRILU,HEDLU,SILU
            INTEGER*1 SYN(2),IBEEP
            INTEGER*2 SYNCH1,SYNCH2
            INTEGER*4 IYEAR,IMONTH,IDAY,THIRTY,TWELVE,BASEYR
      C
      C COMMON
      C
            COMMON/PROG/ IEOD,ISECT
            COMMON/IO/ INLU,OUTLU,LEN4,LEN,ZERO,ONE,IOSTAT,CBPB,CIRBUF
            COMMON/IN/ ERRLU,PRILU,HEDLU,SILU
            COMMON/HEADR/ XLAT,XLONG,TIME,GMT,DEPTH,CASTD,IDAY,IMONTH,IYEAR
            COMMON/HEADR/ WIND,SST,TDRY,TWET
            COMMON/HEADR/ XDAY,XR,YR
            COMMON/HDCHR/ IDSTN,COMNT
      C
      C EQUIVALENCE
      C
            EQUIVALENCE (DTCB(1),DTCSTA)
            EQUIVALENCE (JTEST,SYN(1))
            EQUIVALENCE (BEEP,IBEEP)
      C
      C DATA
      C
            DATA NUM/0/
            DATA SERINT/26,0,39,0,0,0/
            DATA THIRTY/31/,TWELVE/12/,BASEYR/84/
      C
      C OPEN
      C
      C
      C INITIALIZE VARIABLES AND ARRAYS
      C
            CALL INIT
            WRITE(1,*)'CRUISE AND STATION (E.G. PC7###)'
            READ(*,10)IDSTN
         10 FORMAT(A6)
            SILU=8
            OUTFIL(1:2)='2:'
            OUTFIL(3:8)=IDSTN
```

```
78              OUTFIL(9:12)='.OUT'
79              PRIFIL(1:2)='2:'
80              PRIFIL(3:8)=IDSTN
81              PRIFIL(9:12)='.HED'
82              ERRFIL(1:2)='4:'
83              ERRFIL(3:8)=IDSTN
84              ERRFIL(9:12)='.HED'
85              WRITE(*,*)'READ IN HEADER INFORMATION? (1=YES,0=NO)'
86              READ(*,*)IYES
87              WRITE(*,*)'ENTER LIST DEVICE: 0=SCREEN, 1=PRINTER'
88              READ(*,*)PRILU
89              IF(PRILU.EQ.ONE)OPEN(ONE,FILE='#SER01')
90              IF(IYES.EQ.1)THEN
91                      OPEN(HEDLU,FILE=PRIFIL,STATUS='NEW')
92                      CALL STNLOC
93              ENDIF
94      C       WRITE(*,*)'WRITE TO DISK? (1=YES, 0=NO)'
95      C       READ(*,*)IFLOP
96              IFLOP=1
97              IBEEP=$07
98      C
99      C       IF(IFLOP.EQ.1)OPEN(OUTLU,FILE=OUTFIL,FORM='UNFORMATTED',STATUS='NEW')
100             OPEN(OUTLU,FILE=OUTFIL,FORM='UNFORMATTED',STATUS='NEW')
101     C       OPEN(HEDLU,FILE=PRIFIL,STATUS='OLD')
102     C2590   FORMAT(A80)
103     C  40   FORMAT(A6,I2,I2,I4,F5.0,F5.0,7X,F6.0,F6.0,F8.3,F8.3,2F8.2,3F5.2,F6.1)
104     C       READ(HEDLU,40)IDSTN,IDAY,IMONTH,IYEAR,TIME,GMT,DEPTH,CASTD,
105     C     * XLAT,XLONG,XR,YR,SST,TDRY,TWET,WIND
106     C       WRITE(*,40)IDSTN,IDAY,IMONTH,IYEAR,TIME,GMT,DEPTH,CASTD,
107     C     * XLAT,XLONG,XR,YR,SST,TDRY,TWET,WIND
108     C       READ(HEDLU,2590)COMNT2
109     C       WRITE(*,2590)COMNT2
110     C       WRITE(*,*)
111     C       WRITE(*,*)'CORRECT STATION? (0=YES 1=NO)'
112     C       READ(*,*)IST
113     C       IF(IST.NE.0)THEN
114     C               WRITE(*,*)'ENTER NEW HEADER INFO? (1=YES, 0=QUIT)'
115     C               READ(*,*)INEW
116     C               IF(INEW.NE.1)STOP
117     C               OPEN(HEDLU,FILE=PRIFIL,STATUS='NEW')
118     C               IYES=1
119     C       ELSE
120     C               IYDAY=KDAY(IDAY,IMONTH,IYEAR)-KDAY(THIRTY,TWELVE,BASEYR)
121     C               XDAY=FLOAT(IYDAY)+TIME/2400.
122     C               REWIND HEDLU
123     C              WRITE(HEDLU,41)IDSTN,IDAY,IMONTH,IYEAR,TIME,GMT,XDAY,DEPTH,CASTD,
124     C     *  XLAT,XLONG,XR,YR,SST,TDRY,TWET,WIND
125     C               WRITE(HEDLU,2590)COMNT2
126     C  41   FORMAT(A6,I2,I2,I4,F5.0,F5.0,F7.2,F6.0,F6.0,F8.3,F8.3,2F8.2,3F5.2,F6.1)
127     C               CLOSE(HEDLU)
128     C       ENDIF
129     C             WRITE(PRILU,42)IDSTN,IDAY,IMONTH,IYEAR,TIME,GMT,XDAY,DEPTH,CASTD,
130     C     *  XLAT,XLONG,XR,YR,SST,TDRY,TWET,WIND
131     C               WRITE(PRILU,2590)COMNT2
132     C  42   FORMAT(A6,I2,I2,I4,F5.0,F5.0,F7.2,F6.0,F6.0,F8.3,F8.3,/,2F8.2,3F5.2,F6.1)
133     C
134     C READ IN STATION HEADER INFORMATION
135     C
136     C
137     C OPEN SERIAL PORT
138     C
139             CALL SYSOPE(INLU,'#SER02',ONE,ZERO,ZERO,IDUM,IOSTAT)
140             IF(IOSTAT.NE.0)WRITE(*,*)'ERROR OPENING SERIAL PORT 2'
141             CALL ADDR(CIRBUF(1),CBPB(1))
142                     CBPB(3)=8192
143                     CBPB(4)=0
144                     CBPB(5)=0
145                     CBPB(6)=0
146             CALL ADDR(CBPB(1),SERINT(2))
147             CALL SYSFUN(INLU,SERINT,IOSTAT)
148                     IF(IOSTAT.NE.0)WRITE(*,*)'ERROR SENDING PACKET'
149     C
150     C END OF PORT INITIALIZATION
151     C
152     C
153     C IDENTIFY OUTPUT FILES
154     C
```

```
155       C       WRITE(*,10)PRIFIL
156       C       WRITE(ERRLU,10)ERRFIL
157               WRITE(PRILU,*)'TIME  PRESS1  TEMP1  COND1  FAST1 PRESS2 TEMP2
158            *  COND2  FAST2  UW1  UW2'
159               WRITE(*,*)'TIME  PRESS1  TEMP1  COND1  FAST1 PRESS2 TEMP2
160            *  COND2  FAST2  UW1  UW2'
161       C
162       C       WRITE(1,*)'NUMBER OF MINUTES OF DATA?'
163       C       READ(*,*)NMINS
164               NMINS=90
165       C       WRITE(1,*)'OUTPUT INTERVAL FOR PRINT FILE?'
166       C       READ(*,*)NOUT
167               NOUT=200
168       C
169               IEOD=195*NMINS+1
170               ISECT=0
171               IPR=0
172               ISTOR=1
173               NLOST=0
174       C
175       C LOOK FOR FIRST FRAME SYNCH
176       C
177          50   CONTINUE
178                       SYN(2)=JGET(1,NUM)
179       C               WRITE(1,*)JTEST,'  ....DATA....','JGET = ',SYN(2)
180                               ICOUNT=ICOUNT+1
181                               IF(ICOUNT.GT.24)THEN
182       C                               ITIME=ITIME+2
183                                       NLOST=NLOST+1
184                                       ICOUNT=0
185                               ENDIF
186                       IF(JTEST.NE.240)GO TO 50
187                               JDAT(1)=SYN(2)
188                               IF(KFLAG.EQ.0)THEN
189                WRITE(*,*)'FRAME SYNCH FOUND'
190                WRITE(PRILU,*)'FRAME SYNCH FOUND'
191                               ENDIF
192                       KFLAG=1
193               CALL GETDAT(2,24,JDAT,NUM)
194        5000   CONTINUE
195                       IF(JDAT(13).NE.15)THEN
196                               SYN(2)=JGET(1,NUM)
197                               IF(JTEST.NE.240)GO TO 9000
198                               IFLAG=1
199                       ENDIF
200                               IF(NLOST.GT.0)THEN
201                                       WRITE(*,5111)NLOST
202                                       WRITE(*,5050)BEEP
203        5050                           FORMAT(A1)
204                                       WRITE(PRILU,5111)NLOST
205        5111                           FORMAT(40X,I7,'  FRAMES LOST')
206                                       NLOST=0
207                                       KFLAG=0
208                               ENDIF
209       C
210       C PROCESSING SUBROUTINES
211       C
212        6000   CONTINUE
213               CALL SIXT(JDAT,JSTOR)
214       C
215       C
216               CALL SUSPAL
217               DO 60 IJ=1,11
218                       KD(IJ,ISTOR)=JSTOR(IJ)
219          60   CONTINUE
220                       ISTOR=ISTOR+1
221       C
222                       IPR=IPR+1
223                       IF(IPR.EQ.NOUT)THEN
224                               CALL PRDAT(JSTOR)
225                               NPRINT=NPRINT+1
226                               IF(NPRINT.EQ.88)THEN
227               WRITE(PRILU,*)'TIME  PRESS1  TEMP1  COND1  FAST1  PRESS2  TEMP2
228            *  COND2 FAST2 UW1  UW2'
229               WRITE(*,*)'TIME  PRESS1  TEMP1  COND1  FAST1  PRESS2  TEMP2
230            *  COND2 FAST2 UW1 UW2'
231                               NPRINT=0
```

```
232                             ENDIF
233                             IPR=0
234                     ENDIF
235         C
236         C WRITE OUT BINARY DATA FILE-11 SCANS OF 11 WORDS PER RECORD
237         C FIRST ACCUMULATE SCANS
238         C
239                 IF(ISTOR.GT.11)THEN
240                         IF(IFLOP.EQ.1)THEN
241                         CALL AWRITE(DTCB,OUTLU,KD(1,1),LEN,ZERO,ZERO,ZERO,IOSTAT)
242                         IF(IOSTAT.NE.0)WRITE(*,*)'ERROR WRITING TO DISK...IOSTAT= ',IOSTAT
243         C               WRITE(PRILU,*)KD
244                         ENDIF
245         C               WRITE(SILU,61,IOSTAT=IOSTAT)KD
246         C  61           FORMAT(11I7)
247         C               IF(IOSTAT.NE.0)WRITE(*,*)'ERROR WRITING TO SILO...IOSTAT= ',IOSTAT
248                         ISTOR=1
249                 ENDIF
250         C
251                 IF(IFLAG.EQ.1)THEN
252                         JDAT(1)=SYN(2)
253                         CALL GETDAT(2,24,JDAT,NUM)
254                         IFLAG=0
255                 ELSE
256                         CALL GETDAT(1,24,JDAT,NUM)
257                 ENDIF
258                         IF(JDAT(1).NE.240)THEN
259                                 JFLAG=1
260                         ENDIF
261         C
262                         IF(JDAT(13).NE.15)THEN
263                                 IF(JFLAG.NE.1)GO TO 5000
264                                         JFLAG=0
265                                         GO TO 9000
266                         ELSE
267                                 IF(JFLAG.EQ.1)JFLAG=0
268                                 GO TO 6000
269                         ENDIF
270         C
271          9000   CONTINUE
272                         NLOST=NLOST+1
273                         GO TO 50
274                 END
275         C
276         C I*1 FUNCTION GET TO READ CTD DATA FROM RAW DATA STREAM WORD BY WORD
277         C
278         C ************************************************
279                 INTEGER*1 FUNCTION JGET(I,NUM)
280         C ************************************************
281         C
282                 IMPLICIT INTEGER*2 (J-N)
283                 INTEGER*2 CBPB(10)
284                 INTEGER*1 CIRBUF(8192)
285                 INTEGER*1 KDAT(256)
286                 INTEGER*4 LEN4,LEN,INLU,OUTLU,ZERO,ONE,IDUM,IOST,IOSTAT
287                 INTEGER*4 ERRLU,PRILU,HEDLU,SILU
288         C COMMON
289         C
290                 COMMON/PROG/ IEOD,ISECT
291                 COMMON/IO/ INLU,OUTLU,LEN4,LEN,ZERO,ONE,IOSTAT,CBPB,CIRBUF
292                 COMMON/IN/ ERRLU,PRILU,HEDLU,SILU
293         C
294         C DATA
295         C
296                 DATA KDAT/256*0/
297         C
298                 IF(NUM+I.GT.252)NUM=NUM-252
299                         IF(NUM.LE.0)THEN
300                                 ISECT=ISECT+1
301                                 IF(ISECT.EQ.IEOD)THEN
302                                         WRITE(*,*)'END OF DATA  ',ISECT
303                                         STOP
304                                 ENDIF
305             15          IOSTAT=1
306         C                WRITE(*,*)'.......',CBPB(6),'...BYTES IN CIRBUF...'
307         C               IF (CBPB(6).LT.LEN4)GO TO 15
308                         IF (CBPB(6).GT.7000)WRITE(1,*)'CIRBUF OVERFLOW IMMINENT'
```

```
309               CALL SREAD(INLU,KDAT(1),LEN4,ZERO,ZERO,ZERO,IOSTAT)
310               IF(IOSTAT.EQ.10)THEN
311                       WRITE(*,*)'NO DATA ON THE INPUT LINE'
312                       WRITE(*,*)'PAUSE OR STOP? (1 FOR PAUSE, 0 TO STOP)'
313                       READ(*,*)ISTOP
314                       IF(ISTOP.EQ.0)STOP
315                       PAUSE
316                       GO TO 16
317               ENDIF
318               IF(IOSTAT.NE.0)THEN
319                               WRITE(*,*)'ERROR READING DATA...IOSTAT= ',IOSTAT
320                               WRITE(PRILU,*)'ERROR READING DATA...IOSTAT= ',IOSTAT
321                               PAUSE
322               ENDIF
323            16 CONTINUE
324       C
325                       ENDIF
326       C
327               NUM=NUM+I
328               JGET=KDAT(NUM)
329       C       WRITE(*,*)'...JGET = ',JGET,'.....'
330               IF(NUM.EQ.252)NUM=0
331               RETURN
332           900 STOP
333               END
334       C
335       C SUBROUTINE GETDAT TO CALL FUNCTION JGET
336       C
337       C ************************************************
338               SUBROUTINE GETDAT(I1,I2,JDAT,NUM)
339       C ************************************************
340       C
341               IMPLICIT INTEGER*2 (J-N)
342               INTEGER*1 JDAT(24)
343       C
344       C COMMON
345       C
346               COMMON/PROG/ IEOD,ISECT
347       C
348             5 CONTINUE
349               DO 10 I=I1,I2
350                       JDAT(I)=JGET(1,NUM)
351       C               WRITE(*,*)'IN GETDAT AFTER JGET CALL AND RETURN'
352            10 CONTINUE
353       C       ITIME=ITIME+2
354               RETURN
355               END
356       C
357       C SUBROUTINE SIXT TO COMPRESS PAIRS OF 16-BIT NUMBERS INTO A
358       C SINGLE VARIABLE.  32767 IS SUBTRACTED TO KEEP THE NUMBERS
359       C WITHIN TWO'S COMPLEMENT RANGE FOR I*2
360       C
361       C ************************************************
362               SUBROUTINE SIXT(JDAT,JSTOR)
363       C ************************************************
364       C
365               IMPLICIT INTEGER*2 (J-N)
366       C
367               DIMENSION JSTOR(11)
368               INTEGER*4 IDAT(24)
369               INTEGER*1 JDAT(24)
370               INTEGER*1 DATBYT(4),HI,LO
371               INTEGER*4 DATA,IDT,IDPREV
372               INTEGER*4 ERRLU,PRILU,HEDLU,SILU
373       C
374               COMMON/IN/ ERRLU,PRILU,HEDLU,SILU
375       C
376               EQUIVALENCE (DATA,DATBYT(1)),(DATBYT(3),HI),(DATBYT(4),LO)
377       C
378               DATA IDPREV/0/
379       C
380       C       DO 10 I=1,24
381       C               IDAT(I)=JDAT(I)
382       C  10   CONTINUE
383       C
384               DO 30 I=2,9
385                       IJ=2*I
```

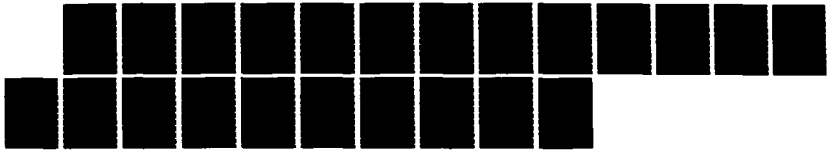
```
                IF(I.GT.5)IJ=IJ+4
                JJ=IJ-1
                HI=JDAT(IJ)
                LO=JDAT(JJ)
C               JSTOR(I)=IDAT(IJ)*256+IDAT(JJ)-32767
                JSTOR(I)=DATA-32767
   30   CONTINUE
                JSTOR(10)=JDAT(2)-32767
                JSTOR(11)=JDAT(14)-32767
                HI=JDAT(12)
                LO=JDAT(11)
                JSTOR(1)=DATA-32767
                IDT=DATA-IDPREV
                IF(IDT.LT.0)THEN
                        WRITE(PRILU,*)'TIME OUT OF ORDER : ',DATA,IDPREV
                        WRITE(*,*)'TIME OUT OF ORDER : ',DATA,IDPREV
                ENDIF
                IDPREV=DATA
        RETURN
        END
C
C SUBROUTINE PRDAT (JSTOR) TO PRINT OUT ONE (DOUBLE) SCAN OF
C CTD DATA IN FLOATING POINT FORMAT
C
C ***************************************************
        SUBROUTINE PRDAT(JSTOR)
C ***************************************************
C
        IMPLICIT INTEGER*2 (J-N)
C
        DIMENSION JSTOR(11),XST(11)
        INTEGER*4 ISTOR(11),ERRLU,PRILU,HEDLU,SILU
C
        COMMON/IN/ ERRLU,PRILU,HEDLU,SILU
C
        DO 10 I=1,11
                ISTOR(I)=JSTOR(I)
                XST(I)=FLOAT(ISTOR(I)+32767)
   10   CONTINUE
C
                TI=XST(1)
                P1=XST(2)*.025
                T1=XST(3)*.0005
                C1=XST(4)*.001
                F1=XST(5)*.0005
                P2=XST(6)*.025
                T2=XST(7)*.0005
                C2=XST(8)*.001
                F2=XST(9)*.0005
                U1=XST(10)
                U2=XST(11)
C
        WRITE(PRILU,1000)TI,P1,T1,C1,F1,P2,T2,C2,F2,U1,U2
 1000   FORMAT(F7.0,F8.1,3F7.3,F8.1,3F7.3,2X,2F4.0)
        WRITE(*,1000)TI,P1,T1,C1,F1,P2,T2,C2,F2,U1,U2
C
        RETURN
        END
C
C INIT SUBPROGRAM TO INITIALIZE VARIABLES
C
C ***************************************************
        SUBROUTINE INIT
C ***************************************************
C
        INTEGER*2 CBPB(10)
        INTEGER*1 CIRBUF(8192)
        INTEGER*4 LEN4,LEN,INLU,OUTLU,ZERO,ONE,IDUM,IOST,IOSTAT
        INTEGER*4 ERRLU,PRILU,HEDLU,SILU
C
        COMMON/IO/ INLU,OUTLU,LEN4,LEN,ZERO,ONE,IOSTAT,CBPB,CIRBUF
        COMMON/IN/ ERRLU,PRILU,HEDLU,SILU
C
        DO 10 I=1,10
                CBPB(I)=0
   10   CONTINUE
C
```

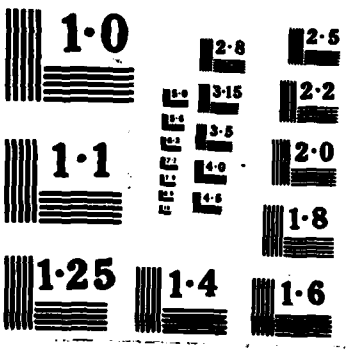
```
                IF(I.GT.5)IJ=IJ+4
                JJ=IJ-1
                HI=JDAT(IJ)
                LO=JDAT(JJ)
C               JSTOR(I)=IDAT(IJ)*256+IDAT(JJ)-32767
                JSTOR(I)=DATA-32767
   30   CONTINUE
                JSTOR(10)=JDAT(2)-32767
                JSTOR(11)=JDAT(14)-32767
                HI=JDAT(12)
                LO=JDAT(11)
                JSTOR(1)=DATA-32767
                IDT=DATA-IDPREV
                IF(IDT.LT.0)THEN
                        WRITE(PRILU,*)'TIME OUT OF ORDER : ',DATA,IDPREV
                        WRITE(*,*)'TIME OUT OF ORDER : ',DATA,IDPREV
                ENDIF
                IDPREV=DATA
        RETURN
        END
C
C SUBROUTINE PRDAT (JSTOR) TO PRINT OUT ONE (DOUBLE) SCAN OF
C CTD DATA IN FLOATING POINT FORMAT
C
C ************************************************
        SUBROUTINE PRDAT(JSTOR)
C ************************************************
C
        IMPLICIT INTEGER*2 (J-N)
C
        DIMENSION JSTOR(11),XST(11)
        INTEGER*4 ISTOR(11),ERRLU,PRILU,HEDLU,SILU
C
        COMMON/IN/ ERRLU,PRILU,HEDLU,SILU
C
        DO 10 I=1,11
                ISTOR(I)=JSTOR(I)
                XST(I)=FLOAT(ISTOR(I)+32767)
   10   CONTINUE
C
                TI=XST(1)
                P1=XST(2)*.025
                T1=XST(3)*.0005
                C1=XST(4)*.001
                F1=XST(5)*.0005
                P2=XST(6)*.025
                T2=XST(7)*.0005
                C2=XST(8)*.001
                F2=XST(9)*.0005
                U1=XST(10)
                U2=XST(11)
C
        WRITE(PRILU,1000)TI,P1,T1,C1,F1,P2,T2,C2,F2,U1,U2
 1000   FORMAT(F7.0,F8.1,3F7.3,F8.1,3F7.3,2X,2F4.0)
        WRITE(*,1000)TI,P1,T1,C1,F1,P2,T2,C2,F2,U1,U2
C
        RETURN
        END
C
C INIT SUBPROGRAM TO INITIALIZE VARIABLES
C
C ************************************************
        SUBROUTINE INIT
C ************************************************
C
        INTEGER*2 CBPB(10)
        INTEGER*1 CIRBUF(8192)
        INTEGER*4 LEN4,LEN,INLU,OUTLU,ZERO,ONE,IDUM,IOST,IOSTAT
        INTEGER*4 ERRLU,PRILU,HEDLU,SILU
C
        COMMON/IO/ INLU,OUTLU,LEN4,LEN,ZERO,ONE,IOSTAT,CBPB,CIRBUF
        COMMON/IN/ ERRLU,PRILU,HEDLU,SILU
C
        DO 10 I=1,10
                CBPB(I)=0
   10   CONTINUE
C
```

```
      DO 30 I=1,8192
            CIRBUF(I)=0
30    CONTINUE
C
      ZERO=0
      ONE=1
      LEN4=252
      LEN=242
      INLU=10
      OUTLU=11
      ERRLU=9
      HEDLU=12
      IOSTAT=1
C
      RETURN
      END
C
C SUBROUTINE STNLOC TO LOG STATION LOCATION INFORMATION
C
C ************************************************
      SUBROUTINE STNLOC
C ************************************************
C
      INTEGER*4 ERRLU,PRILU,HEDLU,SILU
      INTEGER*4 THIRTY,TWELVE,BASEYR,IDAY,IMONTH,IYEAR
      CHARACTER IDSTN*6,COMNT*80
C
      COMMON/HEADR/ XLAT,XLONG,TIME,GMT,DEPTH,CASTD,IDAY,IMONTH,IYEAR
      COMMON/HEADR/ WIND,SST,TDRY,TWET
      COMMON/HEADR/ XDAY,XR,YR
      COMMON/HDCHR/ IDSTN,COMNT
      COMMON/IN/ ERRLU,PRILU,HEDLU,SILU
C
      WRITE(*,*)'ENTER DAY, MONTH, YEAR'
      READ(*,*)IDAY,IMONTH,IYEAR
      WRITE(*,*)'ENTER LOCAL TIME (24 HOUR CLOCK)'
      READ(*,*)TIME
      WRITE(*,*)'ENTER WATER DEPTH'
      READ(*,*)DEPTH
      WRITE(*,*)'ENTER INTENDED CAST DEPTH'
      READ(*,*)CASTD
      WRITE(*,*)'ENTER LATITUDE DEGREES, MINUTES'
      READ(*,*)XLTDEG,XLTMIN
      WRITE(*,*)'ENTER LONGITUDE DEGREES, MINUTES'
      READ(*,*)XLGDEG,XLGMIN
      WRITE(*,*)'ENTER WIND SPEED (MPH)'
      READ(*,*)WIND
      WRITE(*,*)'ENTER SEA SURFACE TEMPERATURE'
      READ(*,*)SST
      WRITE(*,*)'ENTER DRY BULB AND WET BULB AIR TEMPERATURES'
      READ(*,*)TDRY,TWET
      WRITE(*,*)'ENTER 80 CHARACTER COMMENT'
      READ(*,37)COMNT
C
C CALCULATIONS
C
      THIRTY=31
      TWELVE=12
      BASEYR=84
      IYDAY=KDAY(IDAY,IMONTH,IYEAR)-KDAY(THIRTY,TWELVE,BASEYR)
C     XDAY=9999
      GMT=TIME+700
      XDAY=FLOAT(IYDAY)+GMT/2400
      IF(GMT.GT.2400)THEN
            GMT=GMT-2400
      ENDIF
C
      XLAT=XLTDEG+XLTMIN/60.
      XLONG=XLGDEG+XLGMIN/60.
      ZLTO=27.
      ZLGO=111.
      CALL XPL(XLAT,XLONG,ZLTO,ZLGO,XD,YD)
C
C ROTATE AXES TO ALIGN WITH THE GULF
C
      TH=360-324
      TH=2*3.14159*TH/360.
```

AD-A169 838 PICHICUCO 7: GULF OF CALIFORNIA CTD DATA REPORT: US RESEARCH VESSEL R/V N.. (U) SCRIPPS INSTITUTION OF OCEANOGRAPHY LA JOLLA CA N A BRAY ET AL. MAR 85 3/3

UNCLASSIFIED SIO-REF-SERIES-86-4 N00014-84-C-0257 F/G 8/10 NL




1·0
1·1
1·25
1·4
2·8
3·15
3·5
4·0
4·5
2·5
2·2
2·0
1·8
1·6

```
      CTH=COS(TH)
      STH=SIN(TH)
      XR=XD*CTH+YD*STH
      YR=YD*CTH-XD*STH
C
C WRITE STATION DATA TO SCREEN FOR OK
C
      WRITE(PRILU,*)'STATION      DAY   MONTH   YEAR   TIME   GMT      YRDAY'
      WRITE(PRILU,10)IDSTN,IDAY,IMONTH,IYEAR,TIME,GMT,XDAY
      WRITE(PRILU,*)
      WRITE(PRILU,*)'         LAT   MIN   LONG   MIN    DEPTH   CAST DEPTH'
      WRITE(PRILU,20)XLTDEG,XLTMIN,XLGDEG,XLGMIN,DEPTH,CASTD
      WRITE(PRILU,*)
      WRITE(PRILU,*)'         XLAT         XLONG      XR       YR'
      WRITE(PRILU,30)XLAT,XLONG,XR,YR
      WRITE(PRILU,*)
      WRITE(PRILU,*)'         SST       TDRY     TWET         WIND'
      WRITE(PRILU,35)SST,TDRY,TWET,WIND
      WRITE(PRILU,*)
      WRITE(PRILU,*)
      WRITE(PRILU,37)COMNT
C WRITE TO SCREEN
      WRITE(*,*)'STATION      DAY   MONTH   YEAR   TIME   GMT      YRDAY'
      WRITE(*,10)IDSTN,IDAY,IMONTH,IYEAR,TIME,GMT,XDAY
      WRITE(*,*)
      WRITE(*,*)'         LAT   MIN   LONG   MIN    DEPTH   CAST DEPTH'
      WRITE(*,20)XLTDEG,XLTMIN,XLGDEG,XLGMIN,DEPTH,CASTD
      WRITE(*,*)
      WRITE(*,*)'         XLAT         XLONG      XR       YR'
      WRITE(*,30)XLAT,XLONG,XR,YR
      WRITE(*,*)
      WRITE(*,*)'         SST       TDRY     TWET         WIND'
      WRITE(*,35)SST,TDRY,TWET,WIND
      WRITE(*,*)
      WRITE(*,*)
      WRITE(*,37)COMNT
C WRITE TO HEADER FILE
      WRITE(HEDLU,40)IDSTN,IDAY,IMONTH,IYEAR,TIME,GMT,XDAY,DEPTH,CASTD,
     *  XLAT,XLONG,XR,YR,SST,TDRY,TWET,WIND
      WRITE(HEDLU,37)COMNT
      CLOSE(HEDLU)
C     WRITE(ERRLU,40)IDSTN,IDAY,IMONTH,IYEAR,TIME,GMT,XDAY,DEPTH,CASTD,
C    *  XLAT,XLONG,XR,YR,SST,TDRY,TWET,WIND
C     WRITE(ERRLU,37)COMNT
C     CLOSE(ERRLU)
      PAUSE
      RETURN
C
C FORMATS
C
   10 FORMAT(2X,A6,6X,I2,6X,I2,4X,I4,3X,F5.0,2X,F5.0,2X,F7.2)
   20 FORMAT(8X,F4.0,2X,F5.2,2X,F4.0,2X,F5.2,3X,F6.0,4X,F6.0)
   30 FORMAT(7X,F8.3,4X,F8.3,F8.2,2X,F8.2)
   35 FORMAT(9X,F5.2,4X,F5.2,4X,F5.2,4X,F6.1)
   37 FORMAT(A80)
   40 FORMAT(A6,I2,I2,I4,F5.0,F5.0,F7.2,F6.0,F6.0,F8.3,F8.3,2F8.2,3F5.2,F6.1)
      END
C
C SUBROUTINE XPL TO COMPUTE THE DISTANCE IN KM BETWEEN TWO LAT/LONG POSITIONS
C
C ************************************************
      SUBROUTINE XPL(XLAT,XLONG,ZT,ZG,XD,YD)
C ************************************************
C
      XD=-111.12*(XLONG-ZG)*COS((XLAT+ZT)/114.592)
      YD=111.12*(XLAT-ZT)
      RETURN
      END
```

```
      C
      C FILE APROCOM.FOR
      C DIM
            DIMENSION DATA(6000,9)
            DIMENSION TI(6000),PR(6000),TE(6000),CN(6000),FT(6000),UT(6000)
            DIMENSION TC(6000),TR(6000),SA(6000)
      C
      C COLUMN 10 OF DATA IS USED IN THE PLOTTING ROUTINE--BEWARE OF CHANGES
      C
            INTEGER*2 JSTOR(11),DTCB(8),KD(11,11)
            INTEGER*4 LEN,ZERO,ONE,IOSTAT,INLU,OUTLU,HEDLU,PRILU,ERRLU
            INTEGER*1 DTCSTA,ERR(4)
            INTEGER*2 RTS,XON,TERM,WRT,READ
      C
      C CHARACTER
      C
            CHARACTER*12 INFIL,OUTFIL,HEDFIL,ERRFIL
            CHARACTER*80 STNID,COMNT
            CHARACTER*6  IDSTN
      C
      C EQUIVALENCE
      C
            EQUIVALENCE (DTCB(1),DTCSTA)
            EQUIVALENCE (DATA(1,1),TI(1))
      C
      C COMMON
      C
            COMMON/IO/ INLU,OUTLU,HEDLU,LEN,ZERO,ONE,IOSTAT,IQUIT
            COMMON/IN/ ERRLU,PRILU
            COMMON/SU/ NSTEPS,TAU,TAUINV,ISCM,THPR,TEPR,XN,PRPR,TPR,SPR,PINT
            COMMON/SU/ PINT2,NDATA,BLKT,BLKS,BLKD
            COMMON/DAT/ JSTOR,JSCAN,KD
            COMMON/ED/ OFFSET(3),SLOPE(3),P1,P2,T1,T2,C1,C2,DP1,DT1,DC1
            COMMON/LAG/ ANT(50),ANC(50),ANP(50),NPTS2,NPTS
      C
            COMMON KIN
            COMMON KTTX,KLIST,KOUT,KTP,ISW,JSW,KBR
            COMMON PF,T0,S0,DV0
            COMMON PI,THF,SF,DVF
            COMMON PM,THM,SM,DVM,CDM
            COMMON CP(8),Z1,CT(8),Z2,CC(8),Z3,F1,F2,F3,N
      C
            COMMON P(10),T(10),CD(10),DV(10)
            COMMON TH(10),PT(10),TT(10),CDT(10)
            COMMON B(6`,BP(8),BT(8),BC(8),BA(8),CQ(36),MR(8)
            COMMON MM,M1,M2,M2X2,IR,IQ,C1535,IPPREV,IPINT,JCOUNT,ICOUNT
            COMMON NDP,XNDP,TIPREV
            COMMON DATAX(3,21)
            COMMON RTS,XON,TERM,WRT,READ
            COMMON ISTRT
            COMMON SUMT,EXPC(20)
            COMMON SFT(20),STI(20),JSV
            COMMON ERR
      C
      C DON'T PUT ANY BLANK COMMON AFTER THIS LINE--DANGER OF OVERWRITING
      C
            COMMON TI,PR,TE,CN,FT,UT,TC,TR,SA,XJNK
```

```
      C PROGRAM TO READ DATA FROM A HARD DISK FILE, SCALE, LAG CORRECT, AND PRESSURE
      C SORT (BLOCK AVERAGE).
      C BASED ON A SIMILAR PROGRAM FOR PLESSY STD DATA FROM THE 832.
      C 18 SEPT 84
      C PROGRAMMER: N.BRAY
      C MODIFIED 12 MAR 85 ABOARD N.H. TO INCLUDE FOFONOFF LAGCOR SCHEME
      C
      C ***************************************************
            PROGRAM APROC
      C ***************************************************
      C
      $INCLUDE APROCOM.FOR
      C
      C DATA
      C
            DATA INFIL/'                '/
            DATA OUTFIL/'               '/
            DATA HEDFIL/'               '/
            DATA IPLOT/0/,ISTOP/0/,IFAST/0/,IREDO/0/,IBLK/0/
      C
      C PROGRAM
      C
      C
      C DUMMY CALL FOR FLOATING POINT PROCESSOR
      C
            CALL PHYSIC(I)
      C OPEN
      C
      C OPEN KEYPAD FOR BEEP
      C
            CALL SYSOPE(13,'#KPD  ',1,0,0,KDUMP,IOSTAT)
            IF(IOSTAT.NE.0)WRITE(*,*)'KEYPAD IOSTAT IS : ',IOSTAT
      C
      C ENTER STATION
      C
            WRITE(1,*)'CRUISE AND STATION (E.G. PC7###)'
            READ(*,7)IDSTN
        7   FORMAT(A6)
            INFIL(1:2)='2:'
            INFIL(3:8)=IDSTN
            INFIL(9:12)='.OUT'
            OUTFIL(1:2)='4:'
            OUTFIL(3:8)=IDSTN
            OUTFIL(9:12)='.UPT'
            HEDFIL(1:2)='2:'
            HEDFIL(3:8)=IDSTN
            HEDFIL(9:12)='.NHD'
            ERRFIL(1:2)='4:'
            ERRFIL(3:8)=IDSTN
            ERRFIL(9:12)='.ERR'
      C
      C PRINT DEVICE
      C
      C       WRITE(*,*)'LIST TO SCREEN (0) OR PRINTER (1)?'
      C       READ(*,*)IPR
            IPR=1
            PRILU=6
            IF(IPR.EQ.1)THEN
                  OPEN(PRILU,FILE='#SER01')
            ELSE
                  PRILU=0
            ENDIF
            OPEN(2,FILE='CTD.WTS')
      C
                  NSTEPS=2301
      C NSTEPS MUST BE LESS THAN OR EQUAL TO ##, OR THE ARRAY REORGANIZATION
      C SCHEME WILL OVERWRITE ITSELF.
                  NLAG=1
      C
      C FILTER WEIGHTS FOR LAG CORRECTION (T=TEMP, C=COND, P=PRESS)
      C
            DO 1 I=1,50
                  ANT(I)=0.
                  ANP(I)=0.
                  ANC(I)=0.
        1   CONTINUE
      C
```

```
C WARNING---CHANGE THE WEIGHT INDICES WHEN CHANGING NPTS
C
                NPTS=25
                M1=1201
                MM=4800
C   3           CONTINUE
    3           WRITE(*,*)'ST PT, # PTS IN DATA ARRAY,NSTEPS,NLAG'
                WRITE(*,*)M1,MM,NSTEPS,NLAG
                WRITE(*,*)'CHANGE? (0=NO, 1=YES)'
                READ(*,*)IOK
C       IOK=0
                IF(IOK.EQ.1)THEN
                        WRITE(*,*)'M1,MM,NSTEPS,NLAG'
                        READ(*,*)M1,MM,NSTEPS,NLAG
                ENDIF
                READ(2,*)NPTS
                NPTS2=(NPTS-1)/2
                ISCM=(NSTEPS-1)/2
C NLAG IS THE LAG IN SCANS FOR LAGCOR; NPTS IS THE NUMBER OF POINTS IN THE
C FILTER
C
C
C LAGCOR FILTER WEIGHTS AN(I) FROM FOFONOFF, HAYES AND MILLARD 1974
C
                IQ=ISCM+1
                IR=(NPTS-1)/2
                XN=FLOAT(NSTEPS)
                M2=MM-ISCM-IR
                IM=M1+IR-ISCM
                IF(IM.LT.1)WRITE(*,*)'ERROR IN INDEX PARAMETERS'
C
C IQ IS THE NUMBER OF SCANS SUBROUTINE FAST LOOKS BACKWARD; IR IS THE NUMBER OF
C SCANS THAT LAGCOR LOOKS FORWARD
C
                M2X2=MM/2
C
C M2X2 IS THE NUMBER OF DOUBLE SCANS TO READ IN
C
                N=5
                NDP=M2-M1
                XNDP=FLOAT(NDP)
                TIPREV=0.
                SUMT=0.
C
                IF(IREDO.EQ.1)GO TO 8000
C
C CHOSE INTERVAL OF INTEREST
C
C       WRITE(*,*)'ENTER MIN AND MAX PRESSURES (0,0 DOES COMPLETE CAST)'
C       READ(*,*)PST,PND
        PST=0.
        PND=0.
        IF(PND.EQ.0)PND=6000.
        CALL INIT
C
C OPEN
C
        OPEN(INLU,FILE=INFIL,FORM='UNFORMATTED',STATUS='OLD')
        OPEN(OUTLU,FILE=OUTFIL,FORM='FORMATTED',STATUS='NEW')
        OPEN(HEDLU,FILE=HEDFIL,STATUS='OLD',ERR=8888)
 8001   OPEN(ERRLU,FILE=ERRFIL,STATUS='NEW')
        GO TO 8880
C
C IF HEADER FILE NOT FOUND ON FLOPPY, CHECK HARD DISK
C
 8888   HEDFIL(1:2)='4:'
        OPEN(HEDLU,FILE=HEDFIL,STATUS='OLD')
        GO TO 8001
C
C SKIP OVER RECORDS AT BEGINNING OF CAST
C
 8880   CONTINUE
        WRITE(*,*)'SKIP HOW MANY SECONDS AT START OF CAST?'
        READ(*,*)ISKP
        ISREC=ISKP*25/22
        DO 853 IJ=1,ISREC
                CALL SREAD(INLU,KD(1,1),242,ZERO,ZERO,ZERO,IOSTAT)
```

```
  853   CONTINUE
C
C READ HEADER
C
      DO 10 I=1,16
            READ(HEDLU,9)COMNT
            WRITE(OUTLU,9)COMNT
            WRITE(PRILU,9)COMNT
            WRITE(ERRLU,9)COMNT
   10 CONTINUE
      WRITE(OUTLU,*)
      WRITE(PRILU,*)
      WRITE(ERRLU,*)
            WRITE(PRILU,5661)M1,MM,NSTEPS,NLAG,NPTS
 5661 FORMAT('M1 =',I5,'    MM =',I5,'    NSTEPS =',I5,'     NLAG =',I3,'    NPTS =',I3)
C
    9   FORMAT(A80)
C
C CALL CALIBRATION SUBR
C
       CALL CALIB
C PRINT OUT, BIGED ARRAYS
      WRITE(PRILU,*)'RANGES OF: PRESSURE  TEMPERATURE  CONDUCTIVITY'
      WRITE(PRILU,*)'           P1    P2    T1    T2      C1    C2'
      WRITE(PRILU,566)P1,P2,T1,T2,C1,C2
      WRITE(PRILU,*)'
      WRITE(PRILU,*)'FIRST DIF:    DP1          DT1           DC1'
      WRITE(PRILU,567)DP1,DT1,DC1
      WRITE(PRILU,*)'   '
  566 FORMAT(8X,4F6.1,2X,2F6.1)
  567 FORMAT(12X,F8.3,4X,F8.3,6X,F8.3)
C
C PRINT  WEIGHTS
C
            DO 4 IJ=1,NPTS
                  READ(2,*)ANT(IJ),ANC(IJ),ANP(IJ)
    4       CONTINUE
C
      WRITE(PRILU,*)'WEIGHTS OF TEMPERATURE'
      WRITE(PRILU,568)(IJ,ANT(IJ),IJ=1,NPTS)
  568 FORMAT(7(I3,': ',F6.3))
      WRITE(PRILU,*)'                    '
      WRITE(PRILU,*)'WEIGHTS OF CONDUCTIVITY'
      WRITE(PRILU,568)(IJ,ANC(IJ),IJ=1,NPTS)
      WRITE(PRILU,*)'                    '
      WRITE(PRILU,*)'WEIGHTS OF PRESSURE'
      WRITE(PRILU,568)(IJ,ANP(IJ),IJ=1,NPTS)
      WRITE(PRILU,*)'   '
      WRITE(PRILU,*)'  '
C START READING IN DATA
C
    5 JSCAN=(M1-1)/2
      CALL NEWDAT
      PRPR=0.
C
C FILL ROWS 1-10 OF DATA WITH 11-20 TO HAVE A START POINT
C
 8000 THST=M1-ISCM
      DO 20 I=THST,M1-1
            IN=M1
      DO 21 J=1,9
            DATA(I,J)=DATA(IN,J)
   21 CONTINUE
            TC(I)=TE(I)
   20 CONTINUE
      DO 23 I=M1,M1+IR-1
            TC(I)=TE(I)
   23 CONTINUE
 9999 CONTINUE
C
C PRINT OUT RAW DATA VALUES AT TOP AND BOTTOM OF ARRAY
C
      CALL CHECK
C
C CHECK FOR START OF UPCAST
C
      PDP=PR(M2)-PR(M1)
```

```
C       IF(ISTOP.EQ.3)GO TO 9000
C       IF(PDP.LT.0)THEN
C 95            CONTINUE
C               WRITE(*,96)PR(M1),PR(M2)
C 96            FORMAT(2F10.3)
C               WRITE(*,*)'START PR > LAST PR IN ARRAY. ACTION?'
C               WRITE(*,*)'0=STOP'
C               WRITE(*,*)'1=CONTINUE'
C               WRITE(*,*)'2=NEW ARRAY'
C               WRITE(*,*)'3=PROCESS UPTRACE'
C               CALL BEEP
C               READ(*,*)ISTOP
C               IF(ISTOP.EQ.0)STOP
C               IF(ISTOP.EQ.2)GO TO 5000
C               IF(ISTOP.EQ.3)THEN
C                       PINT=-ABS(PINT)
C                       PINT2=-ABS(PINT2)
C               ENDIF
C               IF(ISTOP.GT.3.OR.ISTOP.LT.0)GO TO 95
C       ENDIF
 9000   CONTINUE
C
C COMBINE FAST AND SLOW OR CONTINUE
C
                CALL FAST2
C
C LAG CORRECTION OR CONTINUE
C
        ILAGC=1
        IF(ILAGC.EQ.1)THEN
                        CALL LAGCOR(PR,TC,CN,NLAG,NPTS)
        ELSE
                DO 3020 I=M1,M2
                        SA(I)=SAL78(PR(I),TC(I),CN(I),C1535,0)
                        TR(I)=TC(I)
 3020           CONTINUE
        ENDIF
C
C BLOCK AVERAGE
C
                CALL PRSORT
                IF(IQUIT.EQ.1)THEN
                        WRITE(*,*)'STOP (0) OR CONTINUE ONE MORE ARRAY (1)?'
                        READ(*,*)ICONT
                        IF(ICONT.EQ.0)THEN
                             WRITE(*,*)'END OF PROCESSING : PROGRAMMED STOP '
                             STOP
                        ENDIF
                ENDIF
 5000   CONTINUE
C
C SHIFT ARRAYS AND READ IN NEXT DATA
C
        CALL SHIFT
        JSCAN=(M1+ISCM+IR-1)/2
        CALL NEWDAT
        GO TO 9999
        STOP
        END
C
C
C SUBROUTINE PRSORT TO BLOCK AVERAGE DATA
C
C ************************************************
        SUBROUTINE PRSORT
C ************************************************
C
$INCLUDE APROCOM.FOR
C
   1    CALL PSTATS(PR,PMIN,PMAX,DP,M1,M2)
        PRESS=FLOAT(IPPREV)+PINT
        IF(PINT.LT.0.AND.PRESS.LT.2)THEN
                WRITE(*,*)'PRESS LESS THAN 2 (PRSORT)'
                STOP
        ENDIF
        IF(PMIN.GT.PRESS+PINT2)THEN
                PNEW=(IFIX(PMIN)/2)*2
```

```
309                     WRITE(*,*)'CHANGING PRESS : ',PRESS,PNEW
310                     WRITE(*,*)'OK? (YE OR NO)'
311                     CALL BEEP
312                     IF(NOYES(0,0).NE.1)THEN
313                             RETURN
314                     ENDIF
315                     PEXP=PNEW
316                     PRESS=PEXP+PINT
317             ENDIF
318
319     C       IF(PRESS.GT.PMAX)RETURN
320             IPC=0
321             ISTOP=0
322             PXP1=PRESS-PINT2
323             PXP2=PRESS+PINT2
324     C
325     C BLOCK AVERAGE
326     C
327             DO 12 I=M1,M2
328     C
329     C FOR UPTRACES ONLY (PINT<0)
330     C
331             IF(PINT.LT.0)THEN
332                     IF(PR(I).LE.PXP1)THEN
333                             XND=FLOAT(NDATA)
334                             BLKT=BLKT/XND
335                             BLKS=BLKS/XND
336                     DIFT=TPR-BLKT
337                     DIFS=SPR-BLKS
338                     TPR=BLKT
339                     SPR=BLKS
340                             WRITE(OUTLU,17)PRESS,BLKT,BLKS
341                             WRITE(PRILU,17)PRESS,BLKT,BLKS,DIFT,DIFS,NDATA
342     C
343     C SET UP FOR NEXT BLOCK
344     C
345                             BLKT=0.
346                             BLKS=0.
347     C                       BLKD=0.
348                             NDATA=0
349                             IPPREV=IFIX(PRESS)
350                             PRESS=PRESS+PINT
351                             PXP1=PXP1+PINT
352                             PXP2=PXP2+PINT
353                     ENDIF
354     C
355     C ACCUMULATE SCANS FOR BLOCK AVERAGE
356     C
357      1250           CONTINUE
358                     BLKT=BLKT+TR(I)
359                     BLKS=BLKS+SA(I)
360     C               BLKD=BLKD+1.E05*(EOS80(PR(I),TR(I),SA(I))-V350P(PR(I)))
361                     NDATA=NDATA+1
362             ENDIF
363     C
364     C DOWNTRACES ONLY (PINT>0)
365     C
366             IF(PINT.GT.0)THEN
367                     IF(PR(I).LT.PXP1)THEN
368                             IPC=IPC+1
369     C
370     C ALLOW A FEW POINTS TO BE LT THE TARGET PRESSURE BEFORE DECIDING IT'S THE
371     C START OF THE UPTRACE
372     C
373                             IF(IPC.LT.10.OR.PRESS.LE.10)GO TO 12
374                             IF(ISTOP.EQ.1.OR.ISTOP.EQ.3)GO TO 843
375                             WRITE(*,*)'PRSORT EXIT: PRESS,PR(I): ',PRESS,PR(I)
376                             WRITE(*,*)'STOP (0), CONTINUE (1), OR UPTRACE (3)?'
377                             CALL BEEP
378                             READ (*,*)ISTOP
379                             IF(ISTOP.EQ.0)STOP
380                             IF(ISTOP.EQ.3)THEN
381                                     PINT=-ABS(PINT)
382                                     PINT2=-ABS(PINT2)
383                                     XND=FLOAT(NDATA)
384                                     BLKT=BLKT/XND
385                                     BLKS=BLKS/XND
```

```
                                    DIFT=TPR-BLKT
                                    DIFS=SPR-BLKS
                                    TPR=BLKT
                                    SPR=BLKS
                                    WRITE(OUTLU,17)PRESS,BLKT,BLKS
                                    WRITE(PRILU,17)PRESS,BLKT,BLKS,DIFT,DIFS,NDATA
C
C SET UP FOR NEXT BLOCK
C
                                    BLKT=0.
                                    BLKS=0.
                                    NDATA=0
                                    IPPREV=IFIX(PRESS)
                                    PRESS=PRESS+PINT
                                    PXP1=PXP1+PINT
                                    PXP2=PXP2+PINT
                                    GO TO 12
                            ENDIF
                    ENDIF
  843   CONTINUE
                    IF(PR(I).GE.PXP2)THEN
                            XND=FLOAT(NDATA)
                            BLKT=BLKT/XND
                            BLKS=BLKS/XND
C                           BLKD=BLKD/XND
                    DIFT=TPR-BLKT
                    DIFS=SPR-BLKS
C                   DIFD=DPR-BLKD
                    TPR=BLKT
                    SPR=BLKS
C                   DPR=BLKD
                            WRITE(OUTLU,17)PRESS,BLKT,BLKS
                            WRITE(PRILU,17)PRESS,BLKT,BLKS,DIFT,DIFS,NDATA
C
C SET UP FOR NEXT BLOCK
C
                            BLKT=0.
                            BLKS=0.
C                           BLKD=0.
                            NDATA=0
                            IPPREV=IFIX(PRESS)
                            PRESS=PRESS+PINT
                            PXP1=PXP1+PINT
                            PXP2=PXP2+PINT
                    ENDIF
C
C ACCUMULATE SCANS FOR BLOCK AVERAGE
C
                    CONTINUE
                    BLKT=BLKT+TR(I)
                    BLKS=BLKS+SA(I)
C                   BLKD=BLKD+1.E05*(EOS80(PR(I),TR(I),SA(I))-V350P(PR(I)))
                    NDATA=NDATA+1
            ENDIF
   12       CONTINUE
            RETURN
   17       FORMAT(5(F10.3,2X),I5)
            END
C
C SUBROUTINE SHIFT TO REORGANIZE DATA ARRAY FOR NEXT PROCESSING
C
C ************************************************
            SUBROUTINE SHIFT
C ************************************************
C
$INCLUDE APROCOM.FOR
C
            NQ=M1-IQ
            MQ=M2-IQ+1
C
            DO 10 I=NQ,M1-1
            DO  5 J=1,9
                    DATA(I,J)=DATA(MQ,J)
    5       CONTINUE
            MQ=MQ+1
   10       CONTINUE
C
```

```
463               MR=M2+1
464               DO 20 I=M1,M1+ISCM+IR-1
465               DO 15 J=1,9
466                     DATA(I,J)=DATA(MR,J)
467          15   CONTINUE
468               MR=MR+1
469          20   CONTINUE
470               RETURN
471               END
472          C
473          C SUBROUTINE LAGCOR USES SINGLE POLE FILTER OF FOFONOFF, HAYES, AND MILLARD TO
474          C CORRECT TEMPERATURE FOR SALINITY CALCULATIONS
475          C
476          C ***************************************************
477               SUBROUTINE LAGCOR(XP,XT,XC,INLAG,INPTS)
478          C ***************************************************
479          C
480               DIMENSION XT(4000)
481          $INCLUDE APROCOM.FOR
482          C
483               DO 10 I=M1,M2
484                     TR(I)=TSUM(I,XT)
485                     FILC =CSUM(I,XC)
486                     FILP =PSUM(I,XP)
487                     SA(I)=SAL78(FILP,TR(I),FILC,C1535,0)
488          10   CONTINUE
489               RETURN
490               END
491          C
492          C FUNCTION TSUM TO FILTER TEMPERATURE FOR LAGCOR
493          C
494          C ***************************************************
495               FUNCTION TSUM(I0,XT)
496          C ***************************************************
497          C
498               DIMENSION XT(4000)
499          $INCLUDE APROCOM.FOR
500          C
501               NTST=I0-NPTS2
502               NTEND  =NTST+NPTS-1
503               NJ=1
504               TSUM=0
505               DO 10 I=NTST,NTEND
506                     IF(ANT(NJ).EQ.0)GO TO 15
507                     TSUM=TSUM+ANT(NJ)*XT(I)
508          C          WRITE(*,*)NTST,NTEND,I0,I,NJ,AN(NJ),XT(I),TSUM
509          15         NJ=NJ+1
510          10   CONTINUE
511               RETURN
512               END
513          C
514          C FUNCTION CSUM TO FILTER CONDUCTIVITY FOR LAGCOR
515          C
516          C ***************************************************
517               FUNCTION CSUM(I0,XC)
518          C ***************************************************
519          C
520               DIMENSION XC(4000)
521          $INCLUDE APROCOM.FOR
522          C
523               NTST=I0-NPTS2
524               NTEND  =NTST+NPTS-1
525               NJ=1
526               CSUM=0
527               DO 10 I=NTST,NTEND
528                     IF(ANC(NJ).EQ.0)GO TO 15
529                     CSUM=CSUM+ANC(NJ)*XC(I)
530          15         NJ=NJ+1
531          10   CONTINUE
532               RETURN
533               END
534          C
535          C FUNCTION PSUM TO FILTER PRESSURE FOR LAGCOR
536          C
537          C ***************************************************
538               FUNCTION PSUM(I0,XP)
539          C ***************************************************
```

```
      C
            DIMENSION XP(4000)
      $INCLUDE APROCOM.FOR
      C
            NTST=I0-NPTS2
            NTEND  =NTST+NPTS-1
            NJ=1
            PSUM=0
            DO 10 I=NTST,NTEND
                  IF(ANP(NJ).EQ.0)GO TO 15
                  PSUM=PSUM+ANP(NJ)*XP(I)
         15         NJ=NJ+1
         10   CONTINUE
              RETURN
              END
      C
      C SUBROUTINE FAST2 TO COMBINE FAST AND SLOW TEMPERATURES
      C 25 SEPT 84 N.BRAY
      C
      C ************************************************
            SUBROUTINE FAST2
      C ************************************************
      C
      $INCLUDE APROCOM.FOR
      C
            DO 10 I=M1+IR,M2+IR
                  IF(I.EQ.M1+IR)THEN
                        TEPR=0.
                        THPR=0.
                        DO 15 J=M1+IR-ISCM,M1+IR+ISCM
                              TEPR=TEPR+TE(J)
                              THPR=THPR+FT(J)
         15                   CONTINUE
                              TEPR=TEPR/XN
                              THPR=THPR/XN
                              WRITE(6,*)'I,TEPR,THPR: ',I,TEPR,THPR
                  ENDIF
                        TC(I)=SUM3(I)+FT(I)-SUM2(I)
      C           WRITE(PRILU,11)I,TI(I),PR(I),TE(I),FT(I),TC(I)
         11           FORMAT(I5,5(F10.3,2X))
         10   CONTINUE
              RETURN
              END
      C
      C FUNCTION SUM2 TO COMPUTE RUNNING MEAN FILTER OF FAST TEMP
      C 22 MAR 85 NAB
      C
      C ************************************************
            FUNCTION SUM2(I0)
      C ************************************************
      C
      $INCLUDE APROCOM.FOR
      C
            SUM2=THPR+(FT(I0+ISCM)-FT(I0-ISCM-1))/XN
            THPR=SUM2
            RETURN
            END
      C
      C FUNCTION SUM3 TO COMPUTE RUNNING MEAN FILTER OF SLOW TEMP
      C 22 MAR 85 NAB
      C
      C ************************************************
            FUNCTION SUM3(I0)
      C ************************************************
      C
      $INCLUDE APROCOM.FOR
      C
            SUM3=TEPR+(TE(I0+ISCM)-TE(I0-ISCM-1))/XN
            TEPR=SUM3
            RETURN
            END
      C
      C SUBOUTINE BEEP TO SOUND THE AUDIBLE BEEPER
      C
      C ************************************************
            SUBROUTINE BEEP
      C ************************************************
```

```
      C
            INTEGER*2 BP(3)
            DATA BP/4,10,0/
      C
            CALL SYSFUN(13,BP,IOSTAT)
            IF(IOSTAT.NE.0)WRITE(*,*)'BEEP IOSTAT IS : ',IOSTAT
            RETURN
            END
      C
      C
```

```
      C
      C FILE APROSUB.FOR
      C
      C CALIB SUBROUTINE TO APPLY CALIBRATION VALUES TO RAW DATA
      C
      C ************************************************
            SUBROUTINE CALIB
      C ************************************************
      $INCLUDE APROCOM.FOR
      C
      C CALIBRATION VALUES
      C
      C
      C WRITE OUT CALIBRATION VALUES USED
      C
         23   WRITE(*,*)'VARIABLE          OFFSET          SLOPE'
              WRITE(*,*)
              WRITE(*,*)'PRESSURE        ',OFFSET(1),SLOPE(1)
              WRITE(*,*)'TEMPERATURE     ',OFFSET(2),SLOPE(2)
              WRITE(*,*)'CONDUCTIVITY    ',OFFSET(3),SLOPE(3)
      C
      C       WRITE(*,*)'CHANGE CALIBRATION VALUES (1=YES, 0=NO)?'
      C       READ (*,*)ICH
              ICH=0
              IF(ICH.EQ.0)GO TO 30
         25   WRITE(*,*)'ENTER VARIABLE # (0 TO QUIT)'
              READ(*,*)J
              IF(J.EQ.0)GO TO 30
              WRITE(*,*)'ENTER OFFSET, SLOPE'
              READ(*,*)OFFSET(J),SLOPE(J)
              GO TO 23
         30   CONTINUE
              WRITE(PRILU,*)
              WRITE(PRILU,*)
              WRITE(PRILU,*)'VARIABLE          OFFSET            SLOPE'
              WRITE(PRILU,*)
              WRITE(PRILU,997)OFFSET(1),SLOPE(1)
        997   FORMAT('PRESSURE          ',F7.3,9X,F12.8)
              WRITE(PRILU,998)OFFSET(2),SLOPE(2)
        998   FORMAT('TEMPERATURE       ',F7.3,9X,F12.8)
              WRITE(PRILU,999)OFFSET(3),SLOPE(3)
        999   FORMAT('CONDUCTIVITY      ',F7.3,9X,F12.8)
              WRITE(PRILU,*)
              WRITE(PRILU,*)
              WRITE(OUTLU,*)
              WRITE(OUTLU,*)
              WRITE(OUTLU,*)'VARIABLE          OFFSET          SLOPE'
              WRITE(OUTLU,*)
              WRITE(OUTLU,*)'PRESSURE        ',OFFSET(1),SLOPE(1)
              WRITE(OUTLU,*)'TEMPERATURE     ',OFFSET(2),SLOPE(2)
              WRITE(OUTLU,*)'CONDUCTIVITY    ',OFFSET(3),SLOPE(3)
              WRITE(OUTLU,*)
              WRITE(OUTLU,*)
              RETURN
              END
        C
        C CHECK SUBROUTINE TO CHECK RAW DATA VALUES
        C ************************************************
              SUBROUTINE CHECK
        C ************************************************
        $INCLUDE APROCOM.FOR
        C
        C PRINT OUT CHECK OF EACH INTERVAL
        C
              SALT1=SAL78(PR(M1),TE(M1),CN(M1),C1535,0)
              SALT2=SAL78(PR(M2),TE(M2),CN(M2),C1535,0)
              WRITE(PRILU,2200)PR(M1),TE(M1),CN(M1),SALT1
              WRITE(PRILU,2200)PR(M2),TE(M2),CN(M2),SALT2
         2200 FORMAT(30X,F10.2,3F10.3)
              RETURN
              END
        C
        C
        C INIT SUBPROGRAM TO INITIALIZE VARIABLES
        C
        C ************************************************
              SUBROUTINE INIT
```

```
C ***********************************************
C
$INCLUDE APROCOM.FOR
C
      OFFSET(1)=-4.5
      OFFSET(2)=0.
      OFFSET(3)=0.
      SLOPE(1)=1.
      SLOPE(2)=1.
      SLOPE(3)=1.
      NDATA=0
      PRPR=0.
      THPR=0.
      TEPR=0.
      TPR=0.
      SPR=0.
      BLKT=0.
      BLKS=0.
      BLKD=0.
      ZERO=0
      ONE=1
      LEN=22*M2X2
      INLU=10
      OUTLU=11
      HEDLU=12
      PRILU=6
      ERRLU=7
      IQUIT=0
      IOSTAT=1
      C1535 = 42.909
      IPPREV = 0
      IPINT = 2
      PINT=FLOAT(IPINT)
      PINT2=PINT/2
      JCOUNT = 1
      ICOUNT=1000
      ISTRT=1
C SET FOR BIGED
      P1=2000.
      P2=1.
      T1=30.
      T2=0.
      C1=70.
      C2=30.
      DP1=0.5
      DT1=.10
      DC1=.2
C
C SET UP ARRAYS FOR FAST SUBROUTINE
C
      DO 10 I=1,MM
      DO 10 J=1,9
            DATA(I,J)=0.
10    CONTINUE
      RETURN
      END
C
C
C SUBROUTINE BIGED TO ELIMINATE DATA OUTSIDE OF SET BOUNDS
C
C ***********************************************
      SUBROUTINE BIGED(IERR)
C ***********************************************
C
$INCLUDE APROCOM.FOR
C
      DATA IFLAG/0/,IFL/0/,IFLB/0/
C
      IERR=0
      I=JSCAN*2-1
      I2=I+1
      DO 10 K=I,I2
            IF(PR(K).GT.P1.OR.PR(K).LT.P2)GO TO 999
            IF(TE(K).GT.T1.OR.TE(K).LE.T2)GO TO 999
            IF(FT(K).GT.T1.OR.FT(K).LE.T2)GO TO 999
            IF(CN(K).GT.C1.OR.CN(K).LE.C2)GO TO 999
C
```

```
155       C FIRST DIFFERENCE TESTS
156       C
157       C SKIP FIRST POINT
158       C
159             IF (K.EQ.M1)THEN
160                     WRITE(*,*)'K EQUALS M1'
161                     GO TO 10
162             ENDIF
163                     DP=ABS(PR(K)-PR(K-1))
164                     DT=ABS(TE(K)-TE(K-1))
165                     DC=ABS(CN(K)-CN(K-1))
166                     DF=ABS(FT(K)-FT(K-1))
167       C
168                     IF(DP.GT.DP1)GO TO 998
169                     IF(DT.GT.DT1)GO TO 998
170                     IF(DF.GT.DT1)GO TO 998
171                     IF(DC.GT.DC1)GO TO 998
172          10   CONTINUE
173               RETURN
174       C
175       C ERROR STATUS RETURN
176       C
177         999   CONTINUE
178               IERR=1
179       C
180       C IF PRESSURE IS GREATER THAN 10 DB/PRDAT (I.E. IN THE WATER) WRITE BAD DATA
181
182       C SCAN TO ERRFIL (PC####.ERR)
183       C
184             IF(PR(K).GT.10)THEN
185                     WRITE(ERRLU,990)(DATA(K,J),J=1,6)
186         990         FORMAT('BAD DATA: ',6F9.3,'...200 SKIPS')
187                     IERR=10
188             ENDIF
189             IFLB=IFLB+1
190             IF(MOD(IFLB,100).EQ.0)WRITE(*,*)'BIGED INTERVAL ERRORS: ',IFLB
191             IF(IFLB.GT.5000)STOP
192             RETURN
193         998   CONTINUE
194       C
195       C IF TWO SEQUENTIAL ERRORS, DO NOT REJECT--RETURN INSTEAD
196       C
197             IF(IFLAG.EQ.K)THEN
198                     WRITE(ERRLU,*)'****** SEQUENTIAL ERROR ******'
199       C             WRITE(*,*)'****** SEQUENTIAL ERROR ******'
200       C             WRITE(*,*)
201       C             WRITE(*,980)K,(DATA(K,J),J=1,6),DP,DT,DC,DF
202       C             WRITE(*,*)
203       C             WRITE(*,*)'ENTER 0 TO REJECT, 1 TO CONTINUE'
204       C             CALL BEEP
205       C             READ(*,*)IREJ
206       C             IF(IREJ.EQ.1)RETURN
207                     RETURN
208             ENDIF
209       C
210       C OTHERWISE WRITE OUT ERROR TO ERR FILE
211       C
212             WRITE(ERRLU,980)K,(DATA(K,J),J=1,6),DP,DT,DC,DF
213         980   FORMAT('BAD DIFF: ',I4,1X,6F10.3,/,'.....',4F10.3)
214               IFL=IFL+1
215               IF(MOD(IFL,10).EQ.0)WRITE(*,*)'.......BIGED FIRST DIFF ERRORS: ',IFL
216               IF(IFL.GT.1000)STOP
217               IERR=2
218       C
219       C IFLAG KEEPS TRACK OF SEQUENTIAL ERRORS
220       C
221               IFLAG=K
222               RETURN
223               END
224       C
225       C SUBROUTINE STATS TO FIND MIN, MAX, DELTA OF A SERIES
226       C
227       C ************************************************
228             SUBROUTINE PSTATS(XDAT,XMIN,XMAX,DELTA,M1,M2)
229       C ************************************************
230       C
231             DIMENSION XDAT(1500)
```

```
C
      XMIN=1.E36
      XMAX=-1.E36
      DO 10 I=M1,M2
            IF(XDAT(I).LT.XMIN)XMIN=XDAT(I)
            IF(XDAT(I).GE.XMAX)XMAX=XDAT(I)
10    CONTINUE
      DELTA=XMAX-XMIN
      RETURN
      END
C
C SUBROUTINE NEWDAT TO FILL A SPECIFIED SECTION OF ARRAY DATA WITH NEW DATA
C
C ***************************************************
      SUBROUTINE NEWDAT
C ***************************************************
C
$INCLUDE APROCOM.FOR
C
20    IF(JSCAN.GE.M2X2)GO TO 21
            JSCAN=JSCAN+1
C                 WRITE(*,5)ICOUNT,JSCAN,N
C  5              FORMAT(30X,'ICOUNT : ',I5,'  JSCAN : ',I5,'  N : ',I5)
            CALL GETSCN
            IF(IQUIT.EQ.1)RETURN
            CALL PRDAT
            CALL BIGED(IERR)
C IF IERR IS .NE. 0 THEN A (DOUBLE) SCAN HAS BEEN REJECTED AS OUT OF BOUNDS
            IF(IERR.NE.0)JSCAN=JSCAN-1
C
C REJECT 5 SEC OF DATA FOR ROSETTE FIRING (ASSUMED IF BAD DATA APPEARS BELOW
C THE SURFACE LAYER)
C
            IF(IERR.EQ.10)THEN
                  DO 30 I=1,200
                        CALL GETSCN
30                CONTINUE
            ENDIF
            GO TO 20
21    CONTINUE
      RETURN
      END
C
C SAL78 FCN ********** OCT 24 1979 ************
      REAL FUNCTION SAL78(P1,T,CND,C1535,M)
C ***************************************************
C
C FUNCTION TO CONVERT CONDUCTIVITY TO SALINITY (M=0) OR
C SALINITY TO CONDUCTIVITY (M=1,CND = SAL) ACCORDING TO THE
C ALGORITHMS RECOMMENDED BY JPOTS USING THE PRACTICAL
C SALINITY SCALE (IPSS-78) AND IPTS-68 FOR TEMPERATURE.
C C1535 = 1.0 FOR CONDUCTIVITY RATIO OR CONDUCTIVITY AT
C SALINITY 35 NSU AND TEMPERATURE 15 DEG CELSIUS (IPTS-68) FOR
C ABSOLUTE CONDUCTIVITY.
C PRESSURE: BARS (AS WRITTEN--MODIFIED BY N.BRAY TO BE DBARS)
C RETURNS ZERO FOR CND < 0.0005 AND M = 0
C RETURNS ZERO FOR CND < 0.02   AND M = 1
C CHECKVALUE: SAL78 = 1.888091 FOR S=40 NSU,T=40 DEG C,P=1000 BARS
C SAL78 = 39.99999 FOR CND = 1.88091,T=40DEG C,P=1000 BARS,M=1
C N FOFONOFF, REVISED OCT 6 1980
C N BRAY REVISED TO ACCEPT PRESSURE IN DB, 29 SEPT 83
C
C FCN SAL78,XR = SQRT(RT)
      SAL(XR,XT) =((((2.7081*XR- 7.0261)*XR+14.0941)*XR+25.3851)*XR
     X  -0.1692)*XR+0.0080+(XT/(1.0+0.0162*XT))*(((((-0.0144*XR+
     X   0.0636)*XR-0.0375)*XR-0.0066)*XR-0.0056)*XR+0.0005)
C DERIVATIVE WRT XR : DSAL/DXR
      DSAL(XR,XT) =((((13.5405*XR-28.1044)*XR+42.2823)*XR+50.7702)*XR
     X   -0.1692)+(XT/(1.0+0.0162*XT))*((((-0.0720*XR+0.2544)*XR
     X   -0.1125)*XR-0.0132)*XR-0.0056)
C RT35
      RT35(XT) = (((1.0031E-9*XT-6.9698E-7)*XT+1.104259E-4)*XT
     X   + 2.00564E-2)*XT + 0.6766097
C C,B,A POLYNOMIALS
      C(XP) = ((3.989E-12*XP-6.370E-8)*XP+2.070E-4)*XP
      B(XT) = (4.464E-4*XT+3.426E-2)*XT + 1.0
      A(XT) = -3.107E-3*XT + 0.4215
```

```
      C ZERO SALINITY TRAP
            IF((M.EQ.0).AND.(CND.GT.5E-4))GO TO 5
            IF((M.EQ.1).AND.(CND.GT.0.02))GO TO 5
            SAL78 = 0.0
            RETURN
      C SELECT BRANCH FOR SALINITY (M=0) OR CONDUCTIVITY (M=1)
          5 DT = T - 15.0
            P=P1/10.
            IF(M.EQ.1)GO TO 10
      C CONVERT CONDUCTIVITY TO SALINITY
            R = CND/C1535
            RT = R/(RT35(T)*(1.0 + C(P)/(B(T) + A(T)*R)))
            RT = SQRT(ABS(RT))
      C SALINITY RETURN
            SAL 78 = SAL(RT,DT)
            RETURN
      C CONVERT SALINITY TO CONDUCTIVITY
      C FIRST APPROXIMATION
         10 RT = SQRT(CND/35.0)
            SI = SAL(RT,DT)
            N = 0
      C ITERATE (MAX 10 ITERATIONS) TO INVERT SAL POLY FOR SQRT(RT)
         15 RT = RT + (CND - SI)/DSAL(RT,DT)
            SI = SAL(RT,DT)
            N = N + 1
            DELS = ABS(SI-CND)
            IF((DELS.GT.1.0E-4).AND.(N.LT.10))GO TO 15
      C COMPUTE CONDUCTIVITY RATIO
            RTT = RT35(T)*RT*RT
            AT = A(T)
            BT = B(T)
            CP = C(P)
            CP = RTT*(CP + BT)
            BT = BT-RTT*AT
      C
            R = SQRT(ABS(BT*BT + 4.0*AT*CP)) - BT
      C CONDUCTIVITY RETURN
            SAL78 = 0.5*C1535*R/AT
            RETURN
            END
      C SUBROUTINE PRDAT (JSTOR) TO PRINT OUT ONE (DOUBLE) SCAN OF
      C CTD DATA IN FLOATING POINT FORMAT
      C
      C ***************************************************
            SUBROUTINE PRDAT
      C ***************************************************
      C
      C
            DIMENSION XST(11)
            INTEGER*4 ISTOR(11)
      C
      $INCLUDE APROCOM.FOR
      C
            DO 10 I=1,11
                  ISTOR(I)=JSTOR(I)
                  XST(I)=FLOAT(ISTOR(I)+32767)
         10   CONTINUE
      C
                  J=JSCAN*2-1
                  IF(XST(1).EQ.0.)THEN
      C                WRITE(PRILU,*)'.....TIME ROLL OVER...TIME = ',XST(1)
      C                WRITE(PRILU,*)'.....PREVIOUS TIME WAS : ',TI(J-1)
                       IF(J.EQ.1)THEN
                             TIPREV=TI(M2)
                       ELSE
                             TIPREV=TI(J-1)
                       ENDIF
                  ENDIF
                  TI(J)= XST(1)+TIPREV
                  PR(J)=OFFSET(1) + SLOPE(1)*XST(2)*.025
                  TE(J)=OFFSET(2) + SLOPE(2)*XST(3)*.0005
                  CN(J)=OFFSET(3) + SLOPE(3)*XST(4)*.001
                  FT(J)=XST(5)*.0005
                  UT(J)=XST(10)
                  JJ=J+1
                  TI(JJ)=TI(J)
                  PR(JJ)=OFFSET(1) + SLOPE(1)*XST(6)*.025
```

```
                TE(JJ)=OFFSET(2) + SLOPE(2)*XST(7)*.0005
                CN(JJ)=OFFSET(3) + SLOPE(3)*XST(8)*.001
                FT(JJ)=XST(9)*.0005
                UT(JJ)=XST(11)
C
C MINUS SIGNS
C
        PSIGN=IAND(JSTOR(10),2)
        TSIGN=IAND(JSTOR(10),1)
        IF(PSIGN.NE.0)THEN
                PR(J)=-PR(J)
                PR(JJ)=-PR(JJ)
        ENDIF
C
        IF(TSIGN.NE.0)THEN
                TE(J)=-TE(J)
                FT(J)=-FT(J)
                TE(JJ)=-TE(JJ)
                FT(JJ)=-FT(JJ)
        ENDIF
C
C       WRITE(*,1000)J,TI(J),PR(J),TE(J),CN(J),FT(J),UT(J)
C       WRITE(*,1000)JJ,TI(JJ),PR(JJ),TE(JJ),CN(JJ),FT(JJ),UT(JJ)
 1000   FORMAT(I5,F7.0,F8.1,3F7.3,2X,F4.0)
C
        RETURN
        END
C
C SUBROUTINE GETSCN TO PUT NEXT SCAN OF INPUT DATA (KD) INTO JSTOR
C
C ***************************************************
        SUBROUTINE GETSCN
C ***************************************************
C
        INTEGER*4 JD(11)
        CHARACTER*12 NEWFIL
C
$INCLUDE APROCOM.FOR
C
C
        IF(ICOUNT.GT.11)THEN
                CALL SREAD(INLU,KD(1,1),242,ZERO,ZERO,ZERO,IOSTAT)
                IF(IOSTAT.NE.0)THEN
                        IF(IOSTAT.EQ.133)THEN
                                CLOSE(INLU,IOSTAT=IOSTAT,ERR=915)
  915                           WRITE(*,*)'CLOSE IOSTAT IS : ',IOSTAT
                                WRITE(*,*)'END OF FILE ENCOUNTERED'
                                WRITE(*,*)'ENTER : '
                                WRITE(*,*)'    0 TO STOP'
                                WRITE(*,*)'    1 TO START NEW FILE'
                                WRITE(*,*)'    2 TO PROCESS TOP OF UPTRACE'
                                CALL BEEP
                                READ(*,*)ISTP
                                IF(ISTP.EQ.0)STOP
                                IF(ISTP.EQ.2)IQUIT=1
                                IF(ISTP.GT.2)GO TO 915
  910                           WRITE(*,*)'CHANGE DISC AND ENTER NEW FILE NAME'
                                NEWFIL(1:2)='2:'
                                READ(*,900)NEWFIL(3:8)
                                NEWFIL(9:12)='.OUT'
                                WRITE(*,930)NEWFIL
  900                           FORMAT(A6)
                                PAUSE
  920           OPEN(INLU,FILE=NEWFIL,FORM='UNFORMATTED',STATUS='OLD',ERR=910)
                                WRITE(*,930)NEWFIL
                                WRITE(PRILU,930)NEWFIL
                                WRITE(ERRLU,930)NEWFIL
  930                           FORMAT('NEW FILE ',A12,' OPENED')
C
C READ FIRST RECORD OF NEW FILE
C
                                CALL SREAD(INLU,KD(1,1),242,ZERO,ZERO,ZERO,IOSTAT)
                                WRITE(*,*)'FIRST RECORD OF NEW FILE READ'
                        ELSE
                                WRITE(*,*)'SREAD IOSTAT IS:  ',IOSTAT
                                STOP
                        ENDIF
```

```
463                     ENDIF
464                     ICOUNT=1
465               ENDIF
466               DO 10 IJ=1,11
467                     JSTOR(IJ)=KD(IJ,ICOUNT)
468          10   CONTINUE
469               ICOUNT=ICOUNT+1
470               RETURN
471               END
```

```
C
C PROGRAM TO EMULATE ANA'S PRIME PROGRAM TO CALCULATE WEIGHTS ALA TOOLE AND
C HORNE
C 11 JULY 85 N.BRAY
C
C ************************************************
      PROGRAM ANAW
C ************************************************
C
      COMMON/A1/ OME(100),PH(100),AMP2(100)
      COMMON/A2/ A(100,100),AT(100,100),WT(100),WC(100),WP(100)
      COMMON/A2/ BT(100),BC(100),BP(100)
C
      OPEN(6,FILE='#SER01')
      OPEN(7,FILE='CTD.WTS')
    2 CONTINUE
      WRITE(*,*)'INPUT # OF FREQUENCIES (N) 0 TO STOP'
      READ(*,*)N
      IF(N.EQ.0)STOP
      NR=2*N+1
      FR=FLOAT(NR)
      WRITE(*,*)'INUPT # OF WEIGHTS'
      READ(*,*)NC
      WRITE(*,*)'INPUT STARTING INDEX FOR WEIGHTS (L)'
      READ(*,*)L
      WRITE(6,*)'N, NR, NC, L : ',N,NR,NC,L
C     L=-(NC-1)/2
      PI=3.14159
      TAU=1.
      WRITE(*,*)'ENTER TAU IN SCANS'
      READ(*,*)TAU
C
C CONSTRUCT FREQUENCIES OF INTEREST
C
      OME(1)=0
      DO 10 I=2,N+1
        OME(I)=2*PI*(I-1)/NR
   10 CONTINUE
C
C CONSTRUCT A MATRIX
C
      DO 20 I=1,NC
        KI=N+2
        A(1,I)=1/SQRT(FR)
        DO 15 J=2,N+1
          A(J,I)=COS(OME(J)*L)*SQRT(2./FR)
          A(KI,I)=SIN(OME(J)*L)*SQRT(2./FR)
          KI=KI+1
   15   CONTINUE
        L=L+1
   20 CONTINUE
C
C     DO 25 I=1,NR
C       WRITE(6,2500)(A(I,J),J=1,NC)
 2500   FORMAT(9F8.2)
C  25 CONTINUE
C
C     WRITE(6,*)
C FIND A TRANSPOSE
C
      DO 30 I=1,NC
      DO 30 J=1,NR
        AT(I,J)=A(J,I)
   30 CONTINUE
C
C     DO 35 I=1,NC
C       WRITE(6,2500)(AT(I,J),J=1,NR)
C  35 CONTINUE
      WRITE(6,*)
C
C CONSTRUCT THE B MATRIX
C
        KI=N+2
        BT(1)=1./SQRT(FR)
        BC(1)=BT(1)
        BP(1)=BT(1)
        AMP2(1)=BT(1)**2
```

```
78                      S2 =SQRT(2./FR)
79                      PH(1)=0.
80              DO 40 I=2,N+1
81                      OME(I)=OME(I)
82                      AMP=SQRT(1.+OME(I)**2*TAU**2)
83                      TH =ATAN(OME(I)*TAU)
84                      RR=1/AMP
85                      RR2=RR*RR
86                      WRITE(6,8500)I,OME(I),AMP,TH,RR,RR2
87       8500   FORMAT(I5,2X,5F10.2)
88                      PH(I)=TH
89                      BT(I)=S2*AMP*COS(TH)
90                      BT(KI)=S2*AMP*SIN(TH)
91                      BC(I)=S2
92                      BC(KI)=0.
93                      BP(I)=S2
94                      BP(KI)=0.
95                      AMP2(I)=BT(I)**2+BT(KI)**2
96                      KI=KI+1
97          40  CONTINUE
98       C
99       C CONSTRUCT THE FREQUENCY TAIL-OFF
100      C
101             WRITE(*,*)'ENTER P, ISTP AND IST'
102             READ(*,*)P,ISTP,IST
103                     DWP=1
104                     DW=1
105             DO 43 I=ISTP,N+1
106                     KI=N+I
107                     BP(I)=BP(I)*EXP(-P*DWP)
108                     BP(KI)=BP(KI)*EXP(-P*DWP)
109                     IF(I.GE.IST)THEN
110                             BT(I)=BT(I)*EXP(-P*DW)
111                             BT(KI)=BT(KI)*EXP(-P*DW)
112                             BC(I)=BC(I)*EXP(-P*DW)
113                             BC(KI)=BC(KI)*EXP(-P*DW)
114                             DW=DW+1
115                             AMP2(I)=BT(I)**2+BT(KI)**2
116                     ENDIF
117                     DWP=DWP+1
118         43  CONTINUE
119      C
120      C WRITE TO PRINTER OMEGA, PHASE, B
121      C
122             WRITE(6,*)'TAU, P, ISTP, IST : ',TAU,P,ISTP,IST
123             WRITE(6,*)
124             WRITE(6,*)'OMEGA:'
125             WRITE(6,2500)(OME(I),I=1,N+1)
126             WRITE(6,*)'PHASE:'
127             WRITE(6,2500)(PH(I),I=1,N+1)
128             WRITE(6,*)'BT MATRIX'
129             WRITE(6,2500)(BT(I),I=1,NR)
130             WRITE(6,*)
131             WRITE(6,*)'BC MATRIX'
132             WRITE(6,2500)(BC(I),I=1,NR)
133             WRITE(6,*)
134             WRITE(6,*)'BP MATRIX'
135             WRITE(6,2500)(BP(I),I=1,NR)
136             WRITE(6,*)
137             WRITE(6,*)'AMPLITUDE**2 FROM BT MATRIX'
138             WRITE(6,2500)(AMP2(I),I=1,N+1)
139             WRITE(6,*)
140      C
141      C MULTIPLY AT BY B
142      C
143             SUMW=0.
144                     WRITE(6,*)'     I    WEIGHT   SUM OF WEIGHTS'
145             WRITE(7,*)NC
146             DO 50 I=1,NC
147                     WT(I)=0.
148                     WC(I)=0.
149                     WP(I)=0.
150                     DO 55 K=1,NR
151                             WT(I)=WT(I)+AT(I,K)*BT(K)
152                             WC(I)=WC(I)+AT(I,K)*BC(K)
153                             WP(I)=WP(I)+AT(I,K)*BP(K)
154          55             CONTINUE
```

```
155                     SUMW=SUMW+WT(I)
156                     WRITE(6,5500)I,WT(I),SUMW,WC(I),WP(I)
157       5500          FORMAT(I5,4F10.4)
158         50    CONTINUE
159       C
160       C NORMALIZE
161       C
162             DO 60 I=1,NC
163                     XNWT=WT(I)/SUMW
164                     WRITE(7,*)WT(I),WC(I),WP(I)
165         60    CONTINUE
166             WRITE(6,*)
167             WRITE(6,*)
168             GO TO 2
169             STOP
170             END
```

END

DTIC

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